DOCUMENT RESUME

ED 460 011 SE 065 548

TITLE Characteristics of Recent Science and Engineering Graduates:

1997. Detailed Statistical Tables.

INSTITUTION National Science Foundation, Arlington, VA. Div. of Science

Resources Studies.

REPORT NO NSF-01-337 PUB DATE 2001-09-00

NOTE 157p.

AVAILABLE FROM National Science Foundation, Div. of Science Resources

Studies, 4201 Wilson Blvd., Suite 965, Arlington, VA 22230.

Tel: 301-947-2722; Fax: 703-292-9092; e-mail:

srsweb@nsf.gov. For full text: http://www.nsf.gov/sbe/srs/.

PUB TYPE Numerical/Quantitative Data (110) -- Reports - Descriptive

(141)

EDRS PRICE MF01/PC07 Plus Postage.

DESCRIPTORS *College Graduates; *Engineering; *Graduate Surveys; Higher

Education; *Sciences

ABSTRACT

This document reports results of a survey conducted to identify the demographic characteristics of men and women who received a bachelors or masters degree from U.S. academic institutions during the 1994-1995 and 1995-1996 academic years. The content of the report is divided into three sections: (1) Technical Notes; (2) Detailed Statistical Tables; and (3) Survey Instrument. (YDS)



Characteristics of Recent Science and **Engineering Graduates:** 1997

Detailed Statistical Tables

U.S. DEPARTMENT OF EDUCATION Office of Educational Research and Improvement EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization

- originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

Division of Science Resources Statistics Directorate for Social, Behavioral, and Economic Sciences





Characteristics of Recent Science and Engineering Graduates: 1997

Detailed Statistical Tables

John Tsapogas, Project Officer

Division of Science Resources Statistics
Directorate for Social, Behavioral, and Economic Sciences



National Science Foundation

September 2001



National Science Foundation

Rita R. Colwell Director

Directorate for Social, Behavioral, and Economic Sciences

Norman M. Bradburn

Director

Division of Science Resources Statistics

Lynda T. Carlson

Mary J. Frase

Division Director

Deputy Director

Ronald S. Fecso Chief Statistician

Research and Development Statistics Program

Mary J. Golladay Program Director

DIVISION OF SCIENCE RESOURCES STATISTICS

The Division of Science Resources Studies (SRS) fulfills the legislative mandate of the National Science Foundation Act to ...

provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources and to provide a source of information for policy formulation by other agencies of the Federal Government...

To carry out this mandate, SRS designs, supports, and directs periodic surveys as well as a variety of other data collections and research projects. These surveys yield the materials for SRS staff to compile, analyze, and disseminate quantitative information about domestic and international resources devoted to science, engineering, and technology.

If you have any comments or suggestions about this or any other SRS product or report, we would like to hear from you. Please direct your comments to:

National Science Foundation Division of Science Resources Statistics 4201 Wilson Blvd., Suite 965 Arlington, VA 22230

Telephone: (703) 292-8774 Fax: (703) 292-9092

e-mail: srsweb@nsf.gov

Suggested Citation

National Science Foundation, Division of Science Resources Statistics, Characteristics of Recent Science and Engineering Graduates: 1997, NSF 01-337, Project Officer, John Tsapogas (Arlington, VA 2001).

September 2001

SRS data are available through the World Wide Web (http://www.nsf.gov/sbe/srs/stats.htm). For more information about obtaining reports, contact paperpubs@nsf.gov or call (301) 947-2722. For NSF's Telephonic Device for the Deaf, dial (703) 292-5090.



ACKNOWLEDGMENTS

John Tsapogas of the Division of Science Resources Statistics (SRS) of the National Science Foundation had overall responsibility for conducting the survey and producing this report. Mary Collins of Westat was the study director, and Lucinda Gray of Westat was the associate director.

Linda P. Hardy of SRS and J. Michael Brick of Westat provided valuable statistical advice that greatly enhanced the accuracy of the estimates presented in this report. Comments, reviews, and consultations were provided by Mary Golladay, Program Director of the Human Resources Statistics Program, SRS; Ronald Fecso, Chief Statistician, SRS; and Mary Frase,

Deputy Director, SRS. John R. Gawalt, Director, ISG, and SRS' Web team handled electronic publication. Julia Harriston and Tanya Gore provided copyediting, processing, and final composition for this report.

The National Science Foundation (NSF) expresses its appreciation to the recent graduates who contributed their time by responding to this survey. NSF also extends its sincere appreciation to college administrators and other college officials who contributed their time and effort to this survey; their willingness to participate in the survey greatly enhanced the quality of this report.



iii

CONTENTS

	rage
ACKNOWLEDGMENTS	iii
General Notes	vii
Section A. Technical Notes	1
Overview	3
Sample Design	3
Graduate Eligibility	4
Data Collection and Response	4
Weight Calculations	5
Data Editing	5
Imputation of Missing Data	5
Accuracy of Estimates	5
Generalized Variance Functions	10
Sampling Errors for Totals	10
Sampling Errors for Percentages	10
Nonsampling Errors	12
Comparisons of Data with Previous Years' Results	13
Comparisons with IPEDS Data	13
Other Explanatory Information	15
Exhibit 1. List A: Education Codes	17
Exhibit 2. Major Code Categories for Tabulations	21
Exhibit 3. List B: Job Codes	23



	Page
Exhibit 4. NSF Occupational Code Categories for Tabulations	27
Appendix. Eligible and Ineligible Majors: 1997	29
SECTION B. DETAILED STATISTICAL TABLES	35
Section C. Survey Instrument	129



GENERAL NOTES

This report presents data on the characteristics of men and women who received a bachelor's or master's degree in a science or engineering field from U.S. academic institutions during the 1994–95 (1995) and 1995–96 (1996) academic years. The data were collected in 1997 and 1998 and reflect the status of individuals as of April 1997. In addition to the demographic characteristics of recent college graduates with science and engineering (S&E) degrees, the data may be used to understand the employment experiences of recent S&E graduates, such as the extent to which recent graduates entered the labor force, whether they were able to find employment, and the attributes of that employment.

Results of this survey are presented separately for bachelor's and master's degree recipients; complementary tables for the two degree levels are found on facing pages throughout the report, with the exception of a small number of two-page tables.

This report contains three sections. The technical notes in section A contain information on survey meth-

odology, coverage, concepts, definitions, and sampling errors. Detailed tabulations from the survey are presented in section B. Within section B, tables are grouped by topics, such as demographic characteristics, employment characteristics, and so on. Although data were collected using both computer-assisted telephone interviewing (CATI) and mail questionnaires, we have only included a copy of the mail questionnaire in section C.

The Division of Science Resources Statistics also produces reports that present data on degree completions in science and engineering. The data presented in this report measure the number of individuals with recently acquired science and engineering degrees and do not necessarily coincide with the data on degree completions whose source is the Integrated Postsecondary Education Data System (IPEDS). The IPEDS completions data file represents a count of degrees awarded, whereas the NSRCG represents graduates (persons). For additional information on IPEDS, see "Comparison with IPEDS Data" in section A.



SECTION A. TECHNICAL NOTES



SECTION A. TECHNICAL NOTES

These technical notes include information on sampling and weighting, survey methodology, sampling and nonsampling errors, and discussions of data comparisons to previous cycles of the National Survey of Recent College Graduates (NSRCG) and the Integrated Postsecondary Education Data System (IPEDS) data. For a more detailed discussion of survey methodology, readers are referred to the NSRCG:97 Methodology Report.

OVERVIEW

The National Survey of Recent College Graduates (NSRCG) is sponsored by the National Science Foundation (NSF), Division of Science Resources Statistics (SRS). The NSRCG is one of three data collections covering personnel and graduates in science and engineering. The other two surveys are the National Survey of College Graduates (NSCG) and the Survey of Doctorate Recipients (SDR). Together, they constitute NSF's Scientists and Engineers Statistical Data System (SESTAT). These surveys serve as the basis for developing estimates and characteristics of the total population of scientists and engineers in the United States.

The first NSF-sponsored NSRCG (then known as New Entrants) was conducted in 1974. Subsequent surveys were conducted in 1976, 1978, 1979, 1980, 1982, 1984, 1986, 1988, 1990, 1993, 1995, and 1997. The initial survey collected data on only bachelor's degree recipients, but all subsequent surveys included both bachelor's and master's degree recipients.

For the NSRCG:97, a sample of 275 colleges and universities was asked to provide lists of eligible bachelor's and master's degree recipients. All sampled institutions provided the lists. From these lists, a sample of 14,057 graduates (9,978 bachelor's and 4,079 master's recipients) was selected. These graduates were interviewed between November 1997 and October 1998. Computer-assisted telephone interviewing (CATI) served as the primary means of data collection. Mail data collection was used only for those who could not be reached by telephone. The unweighted graduate response rate was 82 percent; the weighted response rate was 81 percent.

The NSRCG questionnaire underwent relatively few revisions for the 1997 survey. The limited revisions incorporated new topics such as alternative arrangements with employers. All revisions were done in coordination with similar revisions to the other SESTAT surveys. Topics covered in the survey include:

- Educational experience before and after obtaining the sampled degree;
- Graduate employment characteristics including occupation, salary, unemployment, underemployment, and post-degree work-related training;
- Relationship between education and employment;
 and
- Graduate background and demographic characteristics.

Sample Design

The NSRCG used a two-stage sample design. In the first stage, a stratified nationally representative sample of 275 institutions was selected with probability proportional to size. There were 102 self-representing institutions, also known as certainty units. For each institution, the measure of size was a composite related to both the number of graduates and the proportion of these who were black or Hispanic. The 173 noncertainty institutions were implicitly stratified by sorting the list by type of control (public, private), region, and the percentage of degrees awarded in science or engineering. Institutions were then selected by systematic sampling from the ordered list.

The second stage of the sampling process involved selecting graduates within the sampled institutions by cohort. Each sampled institution was asked to provide lists of graduates for sampling. Within graduation year (cohort), each eligible graduate was then classified into one of 42 strata based on the graduate's major field of study and degree level. While race was not an explicit stratification variable, black, Hispanic, and American Indian/Alaskan Native graduates were assigned a measure of size equal to three, while non-black/non-Hispanic/non-American Indian/Alaskan Na-



tive graduates were assigned a measure of size equal to one. This method had the same effect as oversampling black, Hispanic, and American Indian/Alaskan Native graduates by a factor of three. Table 1 lists the major fields and the corresponding sampling rates by cohort and degree. These rates are overall sampling rates for the major field, and include the institution's probability of selection and the within-institution sampling rate. To achieve the within-institution sampling rate, the overall rate was divided by the institution's probability of selection. The sampling rates by stratum were applied within each eligible, responding institution, and resulted in sampling 14,057 graduates. This was slightly larger than the target sample size of 13,500, because persons with unknown majors were also included for complete population coverage.

GRADUATE ELIGIBILITY

To be included in the sample, the graduates had to meet all of the following criteria:

• They received a bachelor's or master's degree in an eligible major from the college or university from which they were sampled;

- They received their degree within the two academic years in the study. For the 1997 study, there were two academic years (July 1994 through June 1995, and July 1995 through June 1996);
- They were under the age of 76 and living during the week of April 15, 1997 (the reference week); and
- They lived in the United States during the reference week.

DATA COLLECTION AND RESPONSE

Prior to graduate data collection, it was first necessary to obtain the cooperation of the sampled institutions that provided lists of graduates. All eligible sampled institutions provided graduate lists for the NSRCG:97; one sampled institution was ineligible because no S&E degrees were awarded during the two cohort years for the 1997 survey.

Graduate data collection took place between November 1997 and October 1998, with computer-assisted telephone interviewing as the primary means of data collection. Flyers were sent to all graduates announc-

Table 1. Major filelds and corresponding sampling rates, by cohort and degree: April 1997

	1995	1995	1996	1996
Major field	bachelor's	master's	bachelor's	master's
	rate	rate	rate	rate
Computer sciences	0.016267	0.015048	0.027114	0.026925
Biological sciences	0.012301	0.012591	0.021912	0.023422
Environmental, agricultural & forestry sciences	0.035956	0.036399	0.034512	0.034851
Mathematics/statistics	. 0.044172	0.041306	0.027265	0.028040
Chemistry	0.009344	0.009152	0.020116	0.020853
Physics/astronomy	0.106371	0.113321	0.063530	0.068295
Other physical sciences, earth sciences,				
geology, oceanography	0.014561	0.012942	0.020136	0.018837
Psychology	0.012125	0.012544	0.024406	0.026032
Economics	0.027000	0.024967	0.050925	0.048058
Political science	0.016243	0.015223	0.022811	0.023248
Sociology/anthropology	0.042912	0.043212	0.030118	0.027652
Other social sciences	0.011813	0.012465	0.023561	0.025190
Aero/astronautical engineering	0.023609	0.022564	0.020528	0.021180
Chemical engineering	0.008219	0.007464	0.016751	0.015346
Civil engineering	0.006104	0.006012	0.010759	0.010898
Electrical engineering	0.009200	0.010179	0.019109	0.018380
Industrial engineering	0.006278	0.005622	0.018038	0.018058
Mechanical engineering	0.009235	0.008994	0.013754	0.014402
Other engineering	0.009261	0.009729	0.017728	0.017326
Unknown major	0.006104	0.005622	0.010759	0.010898

SOURCE: National Science Foundation/Division of Science Resources Studies. National Survey of Recent College Graduates, 1997



ing the study and asking for the phone numbers at which they could be reached during the survey period. Extensive tracing of graduates was required to obtain the desired response rate. Tracing activities included computerized telephone number searches, national change of address searches (NCOA), school alumni office contacts, school major field department contacts, directory assistance, military locators, post office records, personal referrals from parents or others who knew the graduate, and the use of professional tracing organizations.

Table 2 gives the response rates by cohort, degree, major, type of address, gender, and race/ethnicity. The overall unweighted graduate response rate was 82 percent; the weighted response rate was 81 percent. As can be seen from Table 2, response rates varied somewhat by major field of study and by race/ethnicity. Rates were lowest for those with foreign addresses. It is possible that many unlocated persons with foreign addresses were actually ineligible for the survey due to living outside the United States during the survey reference week. However, a graduate was only classified as ineligible if his/her status was confirmed.

WEIGHT CALCULATIONS

To produce national estimates, the data were weighted. The weighting procedures adjusted for unequal selection probabilities, for nonresponse at the graduate level, and for duplication of graduates on the sampling file (graduates in both cohorts). In addition, a ratio adjustment was made at the institution level, using the number of degrees awarded as reported in IPEDS for specified categories of major and degree. The final adjustment to the graduate weights adjusted for responding graduates who could have been sampled twice. For example, a person who obtained an eligible bachelor's degree in 1995 could have obtained an eligible master's degree in 1996 and could have been sampled for either degree. To make the estimates from the survey essentially unbiased, the weights of all responding graduates who could have been sampled twice were divided by 2. The weights of the graduates who were not eligible to be sampled twice were not adjusted.

The weights developed for the NSRCG:97 comprise both full sample weights for use in computing survey estimates and replicate weights for variance estimation using a jackknife replication variance estimation procedure.

DATA EDITING

Most editing checks were included within the CATI system, including range checks, skip pattern rules, and logical consistency checks. Skip patterns were controlled by the CATI system so that inappropriate items were avoided and appropriate items were not missed. For logical consistency check violations, CATI screens appeared that explained the discrepancy and asked the respondent for corrections. Some additional logical consistency checks were added during data preparation. All of the edit checks discussed above were rerun after item nonresponse imputation.

IMPUTATION OF MISSING DATA

Missing data occurred if the respondent cooperated with the survey but did not answer one or more individual questions. The level of item nonresponse in this study was very low (typically 1 percent or less) due to the use of CATI for data collection and of data retrieval techniques for missing key items. However, imputation for item nonresponse was performed for each survey item to make the study results simpler to present and to allow consistent totals to be obtained when analyzing different questionnaire items. "Not applicable" responses were not imputed since these represented respondents who were not eligible to answer the given item.

Imputation was performed using a hot-deck method. Hot-deck methods estimate the missing value of an item by using values of the same item from other record(s) in the same file. Using the hot-deck procedure, each missing questionnaire item was imputed separately. First, respondent records were sorted by items thought to be related to the missing item. Next, a value was imputed for each item nonresponse recipient from a respondent donor within the same subgroup. The results of the imputation procedure were reviewed to ensure that the plan had been followed correctly. In addition, all edit checks were run on the imputed file to be sure that no data inconsistencies were created in the imputation process.

ACCURACY OF ESTIMATES

The survey estimates provided in these tables are subject to two sources of error: sampling and nonsampling errors. Sampling errors occur because the estimates are based on a sample of individuals in the population rather than on the entire population and



Table 2. Number of graduates, unweighted graduate response rates, and weighted graduate response rates, by graduate characteristic: April 1997

Page 1 of 2

						Page 1012
		Resp	onse	Non-	Graduate	Graduate
Graduate characteristic	Total	Complete	Ineligible ¹	response	response rate ²	response rate ²
Total	14,057	10,452	1,032	2,573		81.20%
Graduation cohort ³						
1994-95	7,056	5,147	559	1,350	80.90%	80.30%
1995-96	7,001	5,305	473	1,223	82.50%	82.10%
Sampled degree3				!		
Bachelor's	9,978	7,594	601	1,783	82.10%	81.30%
Master's	4,079	2,858	431	790	80.60%	80.50%
Sampled degree major ³					,	
Computer sciences	974	672	80	222	77.20%	77.80%
Biological sciences	1,398	1,103	98	197	85.90%	. 86.30%
Environmental/agricultural science	501	393	28	80	84.00%	83.50%
Mathematics/statistics	602	471	. 40	91	84.90%	85.60%
Chemistry	506	406	20	80	84.20%	86.00%
Physics/astronomy	467	373	25	69	85.20%	85.70%
Other physical sciences, earth sciences	480	412	21	47	90.20%	90.20%
Psychology	1,554	1,160	64	330	78.80%	78.80%
Economics	558	367	54	137	75.40%	77.40%
Political science	1,142	817	98	227	80.10%	80.80%
Sociology/anthropology	644	479	41	124	80.70%	
Other social sciences	689	479	57	153	4	
Aero/astronautical engineering	488	388	20	80	l	83.40%
Chemical engineering	494	386	42	66		
Civil engineering	564	430	30	104	81.60%	82.20%
Electrical engineering	966	723	45	198	79.50%	79:20%
Industrial engineering	488	351	41	96	80.30%	78.40%
Mechanical engineering	592	479	18	95	84.00%	84.30%
Other engineering	702	482	114	106	84.90%	85.10%
Not reported	248	81	96	71	71.40%	69.50%
Type of address provided by school at	٠				}	
Time of sampling⁴						
U.S. address only	12,675	9,705	800	1	1	
Foreign address		247	157	10		
No address	787	500	75	212	73.10%	73.60%
Gender of graduate ⁵						
Male	8,304	6,178	631		1	
Female	5,753	4,274	395	1,084	81.20%	80.90%

See end of table for notes and sources.



Table 2. Number of graduates, unweighted graduate response rates, and weighted graduate response rates, by graduate characteristic: April 1997

Page 2 of 2

		Response		Non-	Graduate	Graduate
Graduate characteristic	Total	Complete	Ineligible ¹	response	response rate ²	response rate ²
Race/ethnicity ³						
White, non-Hispanic	6,026	4,876	336	. 814	86.50%	85.10%
Hispanic	1,358	998	92	268	80.30%	78.50%
Black, non-Hispanic	1,572	1,168	82	322	79.50%	78.40%
Asian or Pacific Islander	981	661	92	228	76.80%	78.20%
American Indian/Alaskan Native	246	204	11	31	87.40%	87.00%
Nonresident alien	479	211	87	181	62.20%	61.00%
Not reported	3,395	2,334	332	729	78.50%	76.90%

¹The 1,032 ineligibles include the following: graduates living outside the United States during the week of April 15, 1997 (473); graduates who reported an ineligible major field for their sampled degree (287); those who did not receive a bachelor's or master's degree from the sampled school within the correct time frame (216); deceased (23); duplicates (12); those who did not attend the sampled school (10); those who did not receive a bachelor's or master's degree (9); and other ineligible (2).

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997

hence are subject to sampling variability. If the interviews had been conducted with a different sample, the responses would not have been identical; some figures might have been higher, while others might have been lower.

The standard error is the measure of the variability of the estimates due to sampling. It indicates the variability of a sample estimate that would be obtained from all possible samples of a given design and size. Standard errors can be used as a measure of the precision expected from a particular sample. Tables 3 and 4 contain standard errors for key statistics included in the detailed tables.

If all possible samples were surveyed under similar conditions, intervals within plus or minus 1.96 standard errors of a particular statistic would include the true population parameter being estimated in about 95

percent of the samples. This is the 95 percent confidence interval. For example, suppose the total number of 1995 and 1996 bachelor's degree recipients majoring in engineering is 115,135 and the estimated standard error is 3,178. The 95 percent confidence interval for the statistic extends from:

confidence interval for the statistic extends from:

$$115,135 - (3,178 \times 1.96)$$
 to $115,135 + (3,178 \times 1.96) = 108,906$ to $121,364$

This means that one can be confident that intervals constructed in this way contain the true population parameter for 95 percent of all possible samples.

Estimates of standard errors were computed using a technique known as jackknife replication. As with any replication method, jackknife replication involves



²The graduate response rate is calculated as (R-I)/[(R-I) + (N * p)] where R = Response (complete plus ineligible), I = Ineligible, N = Nonresponse, p = Proportion of response found in scope calculated as (R-I)/R. The institution response rate is 100 percent, so the overall response rate is the same as the graduate response rate.

³The cohort, degree, major, and race codes are those reported by institutions at the time of sampling and may not match data reported by the respondents on the survey.

⁴This reflects the type of address provided by the institution at the time of sampling. Additional address information may have been provided by the alumni office during data collection. Graduates for whom both U.S. and foreign addresses were provided are included in the foreign address category.

⁵Gender codes were obtained from four sources: those reported by institutions; those reported on the survey; those coded from first or middle name; and imputation. Imputation was done on 143 nonrespondents where gender could not be coded from the name.

Table 3. Unweighted number, weighted estimate, and standard errors for 1995 and 1996 science and engineering bachelor's degree recipients, by graduate characteristics: April 1997

•			Weighted es	stimate	
•	Unweighted	Weighted	Standard	Weighted	Standard
Characteristic	number	number	Error	percent	error
Total 1995 and 1996 science and					
engineering bachelor's degree					
recipients	7,673	708,930	10,679	100	
Sex					
Male	4,434	366,379	6,336	51.7	0.66
Female	3,239	342,551	7,695	48.3	0.66
Race/ethnicity					
White, non-Hispanic	5,038	540,800	10,265	76.3	0.68
Black, non-Hispanic	982	49,314	2,919	7.0	0.41
Hispanic	921	48,614	2,430	6.9	0.34
Asian/Pacific Islander	638	64,510	2,841	9.1	0.41
American Indian/Alaskan Native	94	5,665	778	0.8	0.11
Type of major field					
Science	5,450	593,794	10,759	83.8	0.48
Engineering	2,223	115,135	3,178	16.2	0.48
Major field of study					
Computer and information				j	
Sciences	377	41,024	2,283	5.8	0.3
Life and related sciences	1,235	139,602	3,989	19.6	0.48
Mathematical sciences	322	26,810	1,433	3.8	0.19
Physical and related sciences	925	36,555	1,337	5.2	0.18
Psychology	849	137,983	4,844	19.5	0.5
Social and related sciences	1,742	212,420	4,907	30.0	0.5
Engineering	2,223	115,135	3,178	16.24	0.48
Occupation (those employed)					
Computer and information					
Sciences	566	49,904	2,279	8.2	0.3
Life and related sciences	194	19,386	1,563	3.2	0.2
Mathematical sciences	59	4,062	576	0.7	0.0
Physical scientists	345	17,234	1,085	2.8	0.1
Psychology	73	11,465	1,415	1.9	0.2
Social and related scientists	89	10,623	1,235	1.8	0.20
Engineers	1,394	74,528	2,737	12.3	0.4
Other occupations	3,921	418,692	8,393	69.1	0.5

KEY: -- = Not applicable

NOTES: Represents graduates from July 1994 through June 1996. Details may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



Table 4. Unweighted number, weighted estimate, and standard errors for 1995 and 1996 science and engineering master's degree recipients, by graduate characteristics: April 1997

and engineering master's degree	recipients, by g	by graduate characteristics: April 1997			
	,, <i> </i>	Weighted estimate			
	Unweighted	Weighted	Standard	Weighted	Standard
Characteristic	number	number	error	percent	error
Total 1995 and 1996 science and		:			
engineering master's degree					
Recipients	2,914	149,526	4,313	100	
Sex					
Male	1,828	88,971	2,506	59.5	1.24
Female	1,086	60,555	3,018	40.5	1.24
Race/ethnicity					
White, non-Hispanic	1,796	103,204	3,751	60.0	1.03
Black, non-Hispanic	272	7,105	514	4.75	0.32
Hispanic	244	7,123	627	4.76	0.39
Asian/Pacific Islander	576	31,306	1,390	20.9	0.96
American Indian/Alaskan Native	26	788	184	0.5	0.12
Type of major field					
Science	1,841	102,545	4,184	68.6	1.20
Engineering	1,073	46,980	1,593	31.42	1.20
Major field of study					
Computer and information					
Sciences	318	18,181	1,174	12.2	0.69
Life and related sciences	285	15,348	852	10.3	0.60
Mathematical sciences	161	7,899	694	5.3	0.42
Physical and related sciences	283	9,670	548	6.5	0.38
Psychology	342	26,352	3,044	17.6	1.66
Social and related sciences	452	25,095	1,111	16.8	0.70
Engineering	1,073	46,980	1,593	31.4	1.20
Occupation (those employed)					
Computer and information					
Sciences	435	23,752	1,269	17.5	0.85
Life and related sciences	123	6,641	563	4.9	0.41
Mathematical sciences	68	3,426	498	2.5	0.36
Physical scientists	182	6,783	519	5.0	0.39
Psychology	127	9,605	1,451	7.1	0.93
Social and related scientists	111	6,138	633	4.5	0.45
Engineers	748	33,486	1,140	24.6	0.97
Other occupations	822	46,003	2,230	33.9	1.06

KEY: -- = Not applicable

NOTES: Represents graduates from July 1994 through June 1996. Details may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Sciences Resources Studies, National Survey of Recent College Graduates, 1997



constructing a number of subsamples (replicates) from the full sample and computing the statistics of interest for each replicate. The mean square error of the replicate estimates around their corresponding full sample estimate provides an estimate of the sampling variance of the statistic of interest. To construct the replicates, 86 stratified subsamples of the full sample were created. Eighty-six jackknife replicates were then formed by deleting one subsample at a time from the full sample. WesVar, a computer program developed at Westat, was used to calculate direct estimates of standard errors for a number of statistics from the survey.

GENERALIZED VARIANCE FUNCTIONS

Computing and printing standard errors for each estimate from the survey is a time-consuming and costly effort. For this survey, a different approach was taken for estimating the standard errors of the estimates included in this report. First, the standard errors for a large number of different estimates were directly computed using the jackknife replication procedures described above. Next, models were fitted to the estimates and standard errors and the parameters of these models were estimated from the direct estimates. These models and their estimated parameters were used to approximate the standard error of an estimate from the survey. This process is called the development of generalized variance functions. Models were fitted for the two types of estimates of primary interest: estimated totals and estimated percentages. It should be noted that the models used to estimate the generalized variance functions may not be completely appropriate for all estimates.

SAMPLING ERRORS FOR TOTALS

For estimated totals, the generalized variance function applied assumes that the relative variance of the estimate (the square of the standard error divided by the square of the estimate) is a linear function of the inverse of the estimate. Using this model, the standard error of an estimate can be computed as:

$$se(y) = \sqrt{ay^2 + by} \tag{1}$$

where se(y) is the standard error of the estimate y, and a and b are estimated parameters of the model. The parameters of the models were computed separately for 1995 bachelor's and master's recipients and for 1996 bachelor's and master's recipients, as well as for other important domains of interest. The estimates of the parameters are given in Table 5.

The following steps should be followed to approximate the standard error of an estimated total:

- 1) obtain the estimated total from the survey,
- 2) determine the most appropriate domain for the estimate from Table 5,
- 3) refer to Table 5 to get the estimates of a and b for this domain, and
- 4) compute the generalized variance using equation (1) above.

For example, suppose that the number of 1995 bachelor's degree recipients in engineering who were currently working in an engineering-related job was 39,400 (y = 39,400). The most appropriate domain from Table 5 is engineering majors with bachelor's degrees from 1995 and the parameters are a = 0.001377 and b = 71.464. Approximate the standard error using equation (1) as:

$$se(39,400) = \sqrt{.001377(39,400)^2 + 71.464(39,400)} = 2,226.$$

SAMPLING ERRORS FOR

Percentages

The model used to approximate the standard errors for estimates of percentages was somewhat less complex. The generalized variance for estimated percentages assumed that the ratio of the variance of an estimate to the variance of the same estimate from a simple random sample of the same size was a constant. This ratio is called the design effect and is often labeled the DEFF. Since the variance for an estimated percentage, p, from a simple random sample is p(100-p) divided by the sample size, the standard error of an estimated percentage can be written as:

$$se(p) = \sqrt{DEFF(p)(100 - p)/n}$$
 (2)



Table 5. Estimated parameters for computing generalized variances for estimates from the 1997 NSRCG

	Bach	elor's recipien	its	Mas	ter's recipients	S
Domain	para	meter estimate	es	parar	neter estimate	es
	a	b	DEFF	a	b	DEFF
1995 graduates						
All graduates	0.000073	132.546	1.6	0.000323	76.41	1.4
Sex						
Male	0.000073	129.242	1.6	-0.000007	67.101	1.4
Female	0.000463	146.776	1.5	0.002307	61.534	1.2
Major				ļ	ļ	
Science majors	0.000273	140.369	1.5	0.001121	76.497	1.4
Engineering majors	0.001377	71.464	1.7	-0.000205	57.181	1.2
Occupation						
Scientists	0.000548	119.521	1.6	0.001300	56.181	1.2
Engineers	0.001161	79.275	1.5	-0.000773	59.125	1.2
Other occupations	0.000222	133.195	1.5	0.001239	67.953	1.2
Race/ethnicity						
White, non-Hispanic	0.000167	144.508	1.4	0.001086	64.441	1.3
Black, non-Hispanic	0.007062	63.168	1.5	-0.003100	41.127	1.3
Hispanic	0.002413	66.442	1.6	0.003209	36.210	1.3
Asian/Pacific Islander	0.002315	127.900	1.3	0.000332	61.901	1.2
American Indian/Alaskan Native	0.004560	77.105	1.6	1	•	1.1
1996 graduates						
All graduates	0.000277	142.671	1.7	0.000474	75.413	. 1.6
Sex						
Male	0.000336	116.715	1.6	0.000238	61.922	1.4
Female	0.000340	175.795	1.5	0.001432	78.436	1.4
Major						
Science majors	0.000640	147.156	1.5	0.001992	65.608	1.5
Engineering majors	0.001446	68.115	1.4	0.000421	47.444	1.2
Occupation					i	
Scientists	-0.000038	122.765	1.4	0.001515	65.234	1.3
Engineers	0.001189	78.696	1.4	0.000181	47.614	1,2
Other occupations	0.000462	168.633	1.5	0.003501	57.424	1.4
Race/ethnicity						
White, non-Hispanic	0.000398	169.388	1.6	0.000629	71.656	1.4
Black, non-Hispanic	0.007336	62.826	1.7	0.000826	48.648	1.7
Hispanic	0.001271	96.859	1.7	0.001409	39.791	1.5
Asian/Pacific Islander	-0.000210	136.221	1.3	0.002409	52.955	1.2
American Indian/Alaskan Native	0.008356	117.414	1.7	0.096373	16.184	1.2

KEY: 1997 NSRCG=The 1997 National Survey of Recent College Graduates

DEFF = Design effect.

SOURCE: National Science Foundation, National Survey of Recent College Graduates, 1997



^{* =} Estimates not reported because the specified model resulted in R-square values too small to report.

where n is the sample size or denominator of the estimated percentage. DEFFs were computed separately for 1995 bachelor's and master's recipients and for 1996 bachelor's and master's recipients, as well as for other important domains of interest. The median or average values of the DEFFs from these computations are given in Table 5.

The following steps should be followed to approximate the standard error of an estimated percentage:

- obtain the estimated percentage and sample size from the survey,
- 2) determine the most appropriate domain for the estimate from Table 5,
- refer to Table 5 to get the estimates of the DEFF for this domain, and
- compute the generalized variance using equation (2) above.

For example, suppose that the percentage of 1995 bachelor's degree recipients in engineering who were currently working in an S&E job was 67 percent (p = 67) and the number of engineering majors from the survey (sample size, n) was 1,100. The most appropriate domain from Table 5 is engineering majors with bachelor's degrees from 1995 and the DEFF for this domain is 1.7. Approximate the standard error using equation (2) as:

$$se(67\%) = \sqrt{1.7(67)(100 - 67)/1100} = 1.85\%$$

NONSAMPLING ERRORS

In addition to sampling errors, the survey estimates are subject to nonsampling errors that can arise because of nonobservation (nonresponse or noncoverage), reporting errors, and errors made in the collection and processing of the data. These errors can sometimes bias the data. The NSRCG:97 included procedures specifically design to minimize nonsampling error. In addition, some special studies conducted during the previous cycles of the NSRCG provided some measures of nonsampling errors that are useful in understanding the data from the current survey as well.

Procedures to minimize nonsampling errors were followed throughout the survey. Extensive questionnaire design work was done by Mathematica Policy Research (MPR), NSF, and Westat. This work included focus groups, expert panel reviews, and mail and CATI pretests. This design work was done in conjunction with the other two SESTAT surveys.

Comprehensive training and monitoring of interviewers and data processing staff helped to ensure the consistency and accuracy of the data file. Data collection was done almost entirely by telephone to help reduce the amount of item nonresponse and item inconsistency. Mail questionnaires were used for cases difficult to complete by telephone. Nonresponse was handled in ways designed to minimize the impact on data quality (through weighting adjustments and imputation). In data preparation, a special effort was made in the area of occupational coding. Respondent-chosen codes were verified by data preparation staff using a variety of information collected on the survey and applying coding rules developed by NSF for the SESTAT system.

While general sampling theory can be used to estimate the sampling variability of a statistic, the measurement of nonsampling error is not easy and usually requires that an experiment be conducted as part of the data collection, or that data external to the study be used. In the NSRCG:95, two quality analysis studies were conducted: (1) an analysis of occupational coding; and (2) a CATI reinterview. As noted above, these special studies can also inform analysts about the 1997 survey data.

The occupational coding report included an analysis of the CATI autocoding of occupation and the best coding operation. During CATI interviewing, each respondent's verbatim occupation description was autocoded by computer into a standard SESTAT code whenever possible. Autocoding included both coding directly to a final category and coding to an intermediate code-selection screen. If the description could not be autocoded, the respondent was asked to select the appropriate occupation category during the interview. For the primary occupation, 22 percent of the responses were autocoded to a final category and 19 percent were autocoded to an intermediate screen. The results of the occupation autocoding were examined, and the process was found to be successful and efficient.



For the best coding operation, an occupational worksheet for each respondent was generated and reviewed by an experienced occupational coder. This review was based on the work-related information provided by the graduate. If the respondent's selfselected occupation code was inappropriate, a new or "best" code was assigned. A total of 17,894 responses were received to the three occupation questions in the 1995 survey cycle. Of these, 25 percent received updated codes during the best coding process, with 16 percent being recoded from the "other" category and 9 percent recoded from the "non-other" categories. This analysis indicated that the best coding activity was necessary to ensure that the most appropriate occupation codes were included on the final data file. As a result of this NSRCG:95 quality study, the best coding procedure was implemented in the 1997 survey as well.

The second quality analysis study conducted in the NSRCG:95 involved a reinterview of a sample of 800 respondents. For this study, sampled respondents were interviewed a second time, and responses to the two interviews were compared. This analysis found that the questionnaire items in which respondents were asked to provide reasons for certain events or behaviors had relatively large index of inconsistency values. Examples include reasons for not working during the reference week and reasons for working part-time. High response variability is typical for items that ask about reasons and beliefs rather than behaviors, and the results were not unusual for these types of items. Some of the other differences between the two interviews were attributed to the time lag between the original interview and reinterview. Overall, the results of the reinterview study did not point to any significant problems with the questionnaire.

For the NSRCG:93, two data quality studies were completed: (1) an analysis of interviewer variance, and (2) a behavioral coding analysis of 100 recorded interviews. The interviewer variance study was designed to measure the impact of interviewer effects on the precision of the estimates. The results showed that interviewer effects for most items were minimal and thus had a very limited effect on the standard error of the estimates. Interviewer variance was highest for open-ended questions.

The behavioral coding study was done to observe the extent to which interviewers were following the structured interview and the extent to which it became necessary for them to give unstructured additional explanation or comments to respondents. As part of the study, 100 interviews were taped and then coded on a variety of behavioral dimensions. This analysis revealed that, on the whole, the interview proceeded in a very structured manner, with 85 percent of all question and answer "dyads" being "asked and answered only." Additional unstructured interaction/discussion took place most frequently for those questions in which there was some ambiguity in the topic. In most cases this interaction was judged to have facilitated obtaining the correct response.

For both survey cycles, results from the quality studies were used to identify those questionnaire items that might need additional revision for the next study cycle. Debriefing sessions concerning the survey were held with interviewers, and this information was also used in revising the survey for the next cycle.

Comparisons of Data With Previous Years' Results

A word of caution needs to be given concerning comparisons with previous NSRCG results. During the 1993 cycle, the SESTAT system underwent considerable revision in several areas, including survey eligibility, data collection procedures, questionnaire content and wording, and data coding and editing procedures. The changes made for the 1995 cycle were less significant, but may affect data trend analysis. For a detailed discussion of these changes, please see the 1993 and 1995 NSRCG methodology reports.

For the 1997 NSRCG, there were no significant procedural changes that would affect the comparison of results between the 1995 and 1997 survey cycles.

COMPARISONS WITH IPEDS DATA

The National Center for Education Statistics (NCES) conducts a survey of the nation's postsecondary institutions, called the Integrated Postsecondary Education Data System (IPEDS). The IPEDS Completions Survey reports on the number of degrees awarded by all major fields of study, along with estimates by gender and race/ethnicity.



Although both the NSRCG and IPEDS are surveys of postsecondary education and both report on completions from those institutions, there are important differences in the target populations for the two surveys that directly affect the estimates of the number of graduates. The reason for the different target populations is that the goals of the surveys are not the same. The IPEDS estimates of degrees awarded are intended to measure the output of the educational system. The NSRCG estimates are intended to measure the supply and utilization of a portion of graduates in the years following their completion of a degree. These goals result in definitions of the target population that are not completely consistent for the two surveys. Other differences between the estimates can be explained to a very large extent by a few important aspects of the design or reporting procedures in the two surveys. The main differences between the two studies that affect comparisons of estimates overall and by race/ethnicity are listed below.

- The IPEDS Completions data file represents a count of degrees awarded, whereas the NSRCG represents graduates (persons). If a person receives more than one degree, institutions are instructed to report each degree separately in IPEDS. In the NSRCG, each person is counted only once.
- The NSRCG includes only people who were residing in the United States during the reference week for the survey (the week of April 15 of the survey year). People who received degrees during the years covered by the survey, but resided outside the United States during the reference week, appear in IPEDS counts, but not in NSRCG counts.
- The NSRCG includes only major fields of study that meet the specific SESTAT system definition of science and engineering (S&E), while IPEDS includes all fields. The SESTAT field codes were designed to map directly to the 6-digit Classification of Instructional Program (CIP) codes used in IPEDS. However, published reports from the two studies may group the specific field codes differently for reporting purposes. Therefore, when comparing the NSRCG estimates in this report to IPEDS, care must be taken to select and group the IPEDS estimates according to the NSRCG field

definitions shown in the appendix. For example, the NSRCG reporting category of Computer and Information Sciences does not include computer programming or data processing technology, but these fields are included in this category in NCES's Digest of Education Statistics. In addition, several NSRCG reporting categories include fields classified as multi/interdisciplinary studies in IPEDS. The NSRCG reporting category of Social and Related Sciences has the most differences in definition from IPEDS. The IPEDS category for Social and Related Sciences also includes History whereas the NSF category excludes History.

- The IPEDS data reflect information submitted by institutions from administrative records, whereas the NSRCG represents reports of individual graduates collected in interviews. Often, estimates differ when the mode of data collection and sources of data are different.
- Whereas the IPEDS is a census of postsecondary institutions, the NSRCG is a sample survey. As a result, NSRCG estimates include the sampling error inherent in all sample surveys.
- There is an additional consideration for estimates by race/ethnicity. Prior to the 1994–95 academic year, IPEDS collected race/ethnicity data only by broad 2-digit CIP code fields, not by the specific 6-digit CIP fields needed to identify the S&E fields as defined on NSRCG. Thus, it is not possible to obtain IPEDS race/ethnicity data that precisely match the S&E population as defined by NSRCG for the academic years included in this report. For example, the 2-digit CIP for Social Sciences and History includes history, which is not an S&E field, but does not include such S&E fields as agricultural economics and public policy analysis which are included in the NSF category for Social and Related Sciences.

Despite these factors, the NSRCG and IPEDS estimates are consistent when appropriate adjustments for these differences are made. For example, the proportional distributions of graduates by field of study are nearly identical, and the numerical estimates are similar. Further information on the comparison of NSRCG and IPEDS estimates is available in the report, A Com-



parison of Estimates in the NSRCG and IPEDS, available in the SRS website, at http://www.nsf.gov/sbe/srs/stats.htm.

OTHER EXPLANATORY

INFORMATION

The following definitions are provided to facilitate the reader's use of the data in this report.

Coverage of tables: The tables in this report present information for two groups of recent graduates. The first of these groups consists of persons who earned bachelor's degrees in S&E fields from U.S. institutions during academic years 1995 and 1996. The second group includes those who earned S&E master's degrees during the same two years.

Major field of study: Derived from the survey major field category most closely related to the respondent's degree field. Exhibit 1 gives a listing of the detailed major field codes used in the survey. Exhibit 2 gives a listing of the summary major field codes developed by NSF and used in the tables. The appendix lists the eligible and ineligible major fields within each summary category.

Occupation: Derived from the survey job list category most closely related to the respondent's primary job. Exhibit 3 gives a listing of the detailed job codes used in the survey, and Exhibit 4 gives the summary occupation codes developed by NSF and used in the tables.

Labor force: The labor force includes individuals working full or part time as well as those not working but seeking work or on layoff. It is a sum of the employed and the unemployed.

Unemployed: The unemployed are those who were not working on April 15 and were seeking work or on layoff from a job.

Type of employer: This is the sector of employment in which the respondent was working on his or her primary job held on April 15, 1997. In this categorization, those working in 4-year colleges and universities or university-affiliated medical schools or research organizations were classified as employed in the "4-year college and university" sector. Those working in elementary, middle, secondary, or 2-year colleges or other educational institutions were categorized in the group "other educational." The other sectors are private, for-profit; self-employed; nonprofit organizations; federal government; and state or local government. Those reporting that they were self-employed but in an incorporated business were classified in the private, for-profit sector.

Primary work activity: This refers to the activity that occupied the most time on the respondent's job. In reporting the data, those who reported applied research, basic research, development, or design work were grouped together in "research and development (R&D)." Those who reported accounting, finance or contracts, employee relations, quality or productivity management, sales and marketing, or managing and supervising were grouped into "management, sales, administration." Those who reported production, operations, maintenance, professional services or other activities were given the code "other."

Full-time salary: This is the annual income for the full-time employed who were not self-employed (either incorporated or not incorporated), whose principal job was not less than 35 hours per week, and who were not full-time students on the reference date (April 15, 1997). To annualize salary, reported hourly salaries were multiplied by the reported number of hours paid per week, then multiplied by 52; reported weekly salaries were multiplied by 12. Yearly and academic yearly salaries were left as reported.



EXHIBIT 1. LIST A: EDUCATION CODES

This EDUCATION CODES list is ordered alphabetically. The titles in bold type are broad fields of study. To make sure you have found the BEST code, please review ALL broad categories before making your choice. If you cannot find the code that BEST describes your field of study, use the "OTHER" code under the most appropriate broad field in bold print. If none of the codes fit your field of study, use Code 995.

Agriculture Business and Production

- 601 Agriculture, economics (also see 655 and 923)
- 602 OTHER agricultural business and production

Agricultural Sciences

- 605 Animal sciences
- 606 Food sciences and technology (also see 638)
- 607 Plant sciences (also see 633)
- 608 OTHER agricultural sciences

610 Architecture/Environmental Design

(for architectural engineering, see 723)

620 Area/Ethnic Studies

Biological/Life Sciences

- 631 Biochemistry and biophysics
- 632 Biology, general
- 633 Botany (also see 607)
- 634 Cell and molecular biology
- 635 Ecology
- 636 Genetics, animal and plant
- 637 Microbiology
- 638 Nutritional sciences (also see 606)
- 639 Pharmacology, human and animal (also see 788)
- 640 Physiology, human and animal
- 641 Zoology, general
- 642 OTHER biological sciences

Business Management/Administrative Services

- 651 Accounting
- 652 Actuarial science
- 653 Business administration and management
- 654 Business, general
- 655 Business/managerial economics (also see 601 and 923)
- 656 Business marketing/marketing mgmt.
- 657 Financial management
- 658 Marketing research
- 843 Operations research
- 659 OTHER business management/admin. services

Communications

- 661 Communications, general
- 662 Journalism
- 663 OTHER communications

Computer and Information Sciences

- 671 Computer/information sciences, general
- 672 Computer programming
- 673 Computer science (also see 727)
- 674 Computer systems analysis
- 675 Data processing technology
- 676 Information services and systems
- 677 OTHER computer and information sciences

Conservation/Renewable Natural Resources

- 680 Environmental science studies
- 681 Forestry sciences
- 682 OTHER conservation/renewable natural resources

690 Criminal Justice/Protective Services

(also see 922)

Education

- 701 Administration
- 702 Computer teacher education
- 703 Counselor education/guidance services
- 704 Educational psychology
- 705 Elementary teacher education
- 706 Mathematics teacher education
- 707 Physical education/coaching
- 708 Pre-elementary teacher education
- 709 Science teacher education
- 710 Secondary teacher education
- 711 Special education
- 712 Social science teacher education
- 713 OTHER education

Engineering

- 721 Aerospace, aeronautical, astronautical engineering
- 722 Agricultural engineering



Engineering (continued)

- 723 Architectural engineering
- 724 Bioengineering and biomedical engineering
- 725 Chemical engineering
- 726 Civil engineering
- 727 Computer/systems engineering (also see 673)
- 728 Electrical, electronics, communications engineering (also see 751)
- 729 Engineering sciences, mechanics, physics
- 730 Environmental engineering
- 731 General engineering
- 732 Geophysical engineering
- 733 Industrial engineering (also see 752)
- 734 Materials engineering, including ceramics and textiles
- 735 Mechanical engineering (also see 753)
- 736 Metallurgical engineering
- 737 Mining and minerals engineering
- 738 Naval architecture and marine engineering
- 739 Nuclear engineering
- 740 Petroleum engineering
- 741 OTHER engineering

Engineering-Related Technologies

- 751 Electrical and electronic technologies
- 752 Industrial production technologies
- 753 Mechanical engineering-related technologies
- 754 OTHER engineering-related technologies

Languages, Linguistics, Literature/Letters

- 760 English Language and Literature/Letters
- 771 Linguistics
- 772 OTHER foreign languages and literature

Health Professions and Related Sciences

- 781 Audiology and speech pathology
- 782 Health services administration
- 783 Health/medical assistants
- 784 Health/medical technologies
- 785 Medical preparatory programs (e.g., pre-dentistry, pre-medical, pre-veterinary)
- 786 Medicine (e.g., dentistry, optometry, osteopathic, podiatry, veterinary)
- 787 Nursing (4 years or longer program)
- 788 Pharmacy (also see 639)
- 789 Physical therapy and other rehabilitation/ therapeutic services

Health Professions and Related Sciences

- 790 Public health (including environmental health and epidemiology)
- 791 OTHER health/medical sciences
- 800 Home Economics
- 810 Law/Prelaw/Legal Studies
- 820 Liberal Arts/General Studies
- 830 Library Science

Mathematics

- 841 Applied (also see 843, 652)
- 842 Mathematics, general
- 843 Operations research
- 844 Statistics
- 845 OTHER mathematics
- 850 Parks, Recreation, Leisure, and Fitness Studies

Philosophy, Religion, and Theology

- 861 Philosophy of science
- 862 OTHER philosophy, religion, theology

Physical Sciences

- 871 Astronomy and astrophysics
- 872 Atmospheric sciences and meteorology
- 631 Biochemistry and biophysics
- 873 Chemistry
- 874 Earth sciences
- 680 Environmental science studies
- 875 Geology
- 876 Geological sciences, other
- 877 Oceanography
- 878 Physics
- 879 OTHER physical sciences

Psychology

- 891 Clinical
- 892 Counseling
- 704 Educational
- 893 Experimental
- 894 General
- 895 Industrial/Organizational



Psychology (continued)

896 Social

897 OTHER psychology

Public Affairs

901 Public administration

902 Public policy studies

903 OTHER public affairs

910 Social Work

Social Sciences and History

921 Anthropology and archeology

922 Criminology (also see 690)

923 Economics (also see 601 and 655)

924 Geography

925 History of science

926 History, other

927 International relations

928 Political science and government

929 Sociology

930 OTHER social sciences

Visual and Performing Arts

941 Dramatic arts

942 Fine arts, all fields

943 Music, all fields

944 OTHÉR visual and performing arts



2

EXHIBIT 2. MAJOR CODE CATEGORIES FOR TABULATIONS

1. Computer and information sciences

Computer science and information sciences 671, 673, 674, 676, 677

2. Life and related sciences

Agricultural and food sciences 605-608 Biological sciences 631-642, 991, (781-791 Ph.D. degree only) Environmental life sciences, including forestry sciences 680, 681

3. Mathematical sciences

Mathematics and related sciences 841-845

4. Physical and related sciences

Chemistry, except biochemistry 873
Earth sciences, geology, and oceanography 872, 874-877
Physics and astronomy 871, 878
Other physical sciences 879

5. Psychology

Psychology 891-897, 704

6. Social and related sciences

Economics 601, 923 Political science and related sciences 902, 927, 928 Sociology and anthropology 921, 922, 929 Other social sciences 771, 861, 924, 925, 930, 620

7. Engineering

Aerospace and related engineering 721
Chemical engineering 725
Civil and architectural engineering 726, 723
Electrical, electronic, computer, and communications engineering 727, 728
Industrial engineering 733
Mechanical engineering 735
Other engineering 722, 724, 729-732, 734, 736-741

8. Other majors

602, 610, 651-659, 661-663, 672, 675, 682, 690, 701-703, 705-713, 751-754, 760, 772, 781-791*, 800, 810, 820, 830, 850, 862, 901, 903, 910, 926, 941-944, 995

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



^{*}At the BA, MA, or professional level.

EXHIBIT 3. LIST B: JOB CODES

This JOB CODES list is ordered alphabetically. The titles in bold type are broad job categories. To make sure you have found the BEST code, please review ALL broad categories before making your choice. If you cannot find the code that BEST describes your job, use the "OTHER" code under the most appropriate broad category in bold print. If none of the codes fit your job, use Code 500.

010 Artists, Broadcasters, Editors, Entertainers, Public Relations Specialists, Writers

Biological/Life Scientists

- 021 Agricultural and food scientists
- 022 Biochemists and biophysicists
- 023 Biological scientists (e.g., botanists, ecologists, zoologists)
- 024 Forestry, conservation scientists
- 025 Medical scientists (excluding practitioners)
- 026 Technologists & technicians in the biological/ life sciences
- 027 OTHER biological/life scientists

Clerical/Administrative Support

- 031 Accounting clerks, bookkeepers
- 032 Secretaries, receptionists, typists
- 033 OTHER administrative (e.g., record clerks, telephone operators)

040 Clergy & Other Religious Workers

Computer Occupations (Also see 173)

- *** Computer engineers (See 087, 088 under Engineering)
- 051 Computer programmers (business, scientific, process control)
- 052 Computer system analysts
- 053 Computer scientists, except system analysts
- 054 Information systems scientists or analysts
- 055 OTHER computer, information science occupations
- *** Consultants (Select the code that comes closest to your usual area of consulting)
- 070 Counselors, Educational & Vocational (Also see 236)

Engineers, Architects, Surveyors

081 Architects

- *** Engineers (Also see 100-103)
 - 082 Aeronautical, aerospace, astronautical
 - 083 Agricultural
 - 084 Bioengineering & biomedical
 - 085 Chemical
 - 086 Civil, including architectural & sanitary
 - 087 Computer engineer hardware
 - 088 Computer engineer software
 - 089 Electrical, electronic
 - 090 Environmental
 - 091 Industrial
 - 092 Marine engineer or naval architect
 - 093 Materials or metallurgical
 - 094 Mechanical
 - 095 Mining or geological
 - 096 Nuclear
 - 097 Petroleum
 - 098 Sales
 - 099 Other engineers
- *** Engineering Technologists and Technicians
 - 100 Electrical, electronic, industrial, mechanical
 - 101 Drafting occupations, including computer drafting
 - 102 Surveying and mapping
 - 103 OTHER engineering technologists and technicians
- 104 Surveyors

110 Farmers, Foresters & Fishermen

Health Occupations

- 111 Diagnosing/Treating Practitioners (e.g., dentists, optometrists, physicians, psychiatrists, podiatrists, surgeons, veterinarians)
- 112 Registered nurses, pharmacists, dieticians, therapists, physician assistants
- 113 Health Technologists & Technicians (e.g., dental hygienists, health record technologist/technicians, licensed practical nurses,



Health Occupations (continued)

medical or laboratory technicians, radiologic tech-nologists/technicians)

114 OTHER health occupations

120 Lawyers, Judges

130 Librarians, Archivists, Curators

Managers, Executives, Administrators

(Also see 151-153)

- 141 Top and mid-level managers, executives, administrators (people who manage other managers)
- *** All other managers, including the selfemployed
 - Use the code that comes closest to the field you manage

Management-Related Occupations

(Also see 141)

- 151 Accountants, auditors, and other financial specialists
- 152 Personnel, training, and labor relations specialists
- 153 OTHER management related occupations

Mathematical Scientists

- 171 Actuaries
- 172 Mathematicians
- 173 Operations research analysts, modeling
- 174 Statisticians
- 175 Technologists and technicians in the mathematical sciences
- 176 OTHER mathematical scientists

Physical Scientists

- 191 Astronomers
- 192 Atmospheric and space scientists
- 193 Chemists, except biochemists
- 194 Geologists, including earth scientists
- 195 Oceanographers
- 196 Physicists
- 197 Technologists and technicians in the physical sciences
- 198 OTHER physical scientists

*** Research Associates/Assistants

(Select the code that comes closest to your field)

Sales and Marketing

- 200 Insurance, securities, real estate & business services
- 201 Sales Occupations Commodities Except Retail (e.g., industrial machinery/equipment/ supplies, medical and dental equip/supplies)
- 202 Sales Occupations Retail (e.g., furnishings, clothing, motor vehicles, cosmetics)
- 203 OTHER marketing and sales occupations

Service Occupations, Except Health

(Also see 111-114)

- 221 Food Preparation and Service (e.g., cooks, waitresses, bartenders)
- 222 Protective services (e.g., fire fighters, police, guards)
- 223 OTHER service occupations, except health

Social Scientists

- 231 Anthropologists
- 232 Economists
- 233 Historians, science and technology
- 234 Historians, except science and technology
- 235 Political scientists
- 236 Psychologists, including clinical (Also see 070)
- 237 Sociologists
- 238 OTHER social scientist

240 Social Workers

Teachers/Professors

- 251 Pre-Kindergarten and kindergarten
- 252 Elementary
- 253 Secondary computer, math, or sciences
- 254 Secondary social sciences
- 255 Secondary other subjects
- 256 Special education primary and secondary
- 257 OTHER precollegiate area

*** Postsecondary

- 271 Agriculture
- 272 Art, Drama, and Music
- 273 Biological Sciences
- 274 Business Commerce and Marketing
- 275 Chemistry
- 276 Computer Science
- 277 Earth, Environmental, and Marine Science
- 278 Economics
- 279 Education



24

28.

Teachers/Professors (continued)

*** Postsecondary

- 280 Engineering
- 281 English
- 282 Foreign Language
- 283 History
- 284 Home Economics
- 285 Law
- 286 Mathematical Sciences
- 287 Medical Science
- 288 Physical Education
- 289 Physics
- 290 Political Science
- 291 Psychology
- 292 Social Work
- 293 Sociology
- 294 Theology
- 295 Trade and Industrial
- 296 OTHER health specialties
- 297 OTHER natural sciences
- 298 OTHER social sciences
- 299 OTHER Postsecondary

Other Professions

- 401 Construction trades, miners & well drillers
- 402 Mechanics and repairers
- 403 Precision/production occupations (e.g., metal workers, woodworkers, butchers, bakers, printing occupations, tailors, shoemakers, photographic process)
- 404 Operators and related occupations (e.g., machine set-up, machine operators and tenders, fabricators, assemblers)
- 405 Transportation/material moving occupations

500 Other Occupations (Not Listed)

- 501 Teaching in non-school setting
- 502 Legal technician



EXHIBIT 4. NSF OCCUPATIONAL CODE CATEGORIES FOR TABULATIONS

1. Computer and information scientists

Computer and information scientists 052-055, 088 Postsecondary teachers in computer sciences 276

2. Life and related scientists

Agricultural and food scientists 021 Biological scientists 022, 023, 025, 027 Environmental life scientists including forestry scientists 024 Postsecondary teachers in life and related sciences 273, 271, 287, 297

3. Mathematical scientists

Mathematical scientists 172-174, 176
Postsecondary teachers in mathematical sciences 286

4. Physical scientists

Chemists, except biochemists 193
Earth scientists, geologists, and oceanographers 192, 194, 195
Physicists and astronomers 191, 196
Other physical scientists 198
Postsecondary teachers in physical and related sciences 289, 277, 275

5. Psychology

Psychologists 236

6. Social and related scientists

Economists 232
Political scientists 235
Sociologists and anthropologists 231, 237
Other social scientists 238, 233
Postsecondary teachers in social and related sciences 278, 291, 290, 293, 298

7. Engineers

Aerospace and related engineers 082
Chemical engineers 085
Civil and architectural engineers 086
Electrical, electronic, computer, and communications engineers 087, 089
Industrial engineers 091
Mechanical engineers 094
Other engineers 083, 084, 090, 092-093, 095-097, 099, 098
Postsecondary teachers in engineering 280



8. All other occupations (occupations other than S&E)

Managers and related occupations 141, 151-153

Health and related occupations, 111-114

Educators other than science and engineering postsecondary 253-254, 251, 252, 255-257, 272, 274, 279 281-285, 288, 292, 294-296, 299

Social services and related occupations 240, 070, 040

Technicians, including computer programmers 026, 175, 197, 100-104, 081, 051

Sales and marketing occupations 200-203

Other occupations 010, 031-033, 120, 130, 110, 500 (501-502), 171, 234, 221-223, 401-405

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



APPENDIX

ELIGIBLE AND INELIGIBLE MAJORS: 1997 ELIGIBLE SCIENCE AND ENGINEERING FIELDS OF STUDY

	1997 NSF CODE	1990 CIP ¹ CODE
1. Computer, information, and mathematical sciences		
11 COMPUTER & INFO SCIENCES		
COMPUTER & INFO SCIENCES, GENERAL	671	11.0101
COMPUTER SCIENCE	673	11.0701
COMPUTER SYSTEMS ANALYSIS	674	11.0501
INFORMATION SCIENCES & SYSTEMS	676	11.0401
COMPUTER & INFO SCIENCES, OTHER	677	11.9999
12 MATHEMATICAL SCIENCES		
APPLIED MATHEMATICS, GENERAL	841	27.0301
APPLIED MATHEMATICS, OTHER	841	27.0399
MATHEMATICS	842	27.0101
OPERATIONS RESEARCH	843	27.0302
MATHEMATICAL STATISTICS	844	27.0501
MATHEMATICS, OTHER	845	27.9999
MATHEMATICS & COMPUTER SCIENCE	845	30.0801
2. Life and related sciences		
21 AGRICULTURAL & FOOD SCIENCES		
ANIMAL SCIENCES	605	02.0201-02.0299
FOOD SCIENCES & TECHNOLOGY	606	02.0301
PLANT SCIENCES	607	02.0401-02.0499
SOIL SCIENCE	608	02.0501
AGRICULTURAL SCIENCES, OTHER	608	02.9999
AGRICULTURAL SCIENCES, GENERAL	608	02.0101-02.0102
22 BIOLOGICAL SCIENCES		
BIOCHEMISTRY & BIOPHYSICS	631	26.0202-26.0203
BIOLOGY, GENERAL	632	26.0101
BOTANY	633	26.0301-26.0399
CELL & MOLECULAR BIOLOGY	634	26.0401-26.0499
ECOLOGY	635	26.0603
GENETICS, PLANT & ANIMAL	636	26.0613
MICROBIOLOGY/BACTERIOLOGY	637	26.0501
NUTRITIONAL SCIENCES	638	26.0609
PHARMACOLOGY, HUMAN & ANIMAL	639	26.0705
PHYSIOLOGY, HUMAN & ANIMAL	640	26.0706
ZOOLOGY, GENERAL	641	26.0701
ENTOMOLOGY	641	26.0702
PATHOLOGY, HUMAN & ANIMAL	641	26.0704



		1997 NSF CODE	1990 CIP ¹ CODE
2.	Life and related sciences (continued)		
	ZOOLOGY, OTHER	641	26.0799
	ANATOMY	642	26.0601
	MARINE/AQUATIC BIOLOGY	642	26.0607
	NEUROSCIENCE	642	26.0608
	PARASITOLOGY	642	26.0610
	RADIATION BIOLOGY/RADIOBIOLOGY	642	26.0611
	TOXICOLOGY	642	26.0612
	BIOMETRICS	642	26.0614
	BIOSTATISTICS	642	26.0615
	BIOTECHNOLOGY RESEARCH	642	26.0616
	EVOLUTIONARY BIOLOGY	642	26.0617
	BIOLOGICAL IMMUNOLOGY	642	26.0618
	VIROLOGY	642	26.0619
	MISC BIOLOGICAL SPEC, OTHER	642	26.0699
	BIOLOGICAL SCIENCES, OTHER	642	26.9999
	BIOLOGICAL & PHYSICAL SCIENCES	991	30.0101
	SYSTEMS SCIENCE & THEORY	991	30.0601
		<i>771</i>	30.0001
23	ENVIRONMENTAL & FORESTRY SCIENCES		
	ENVIRONMENTAL SCIENCE/STUDIES	680	03.0102
	FORESTRY SCIENCES	681	03.0502
3.	Physical and related sciences		
31	CHEMISTRY		
	CHEMISTRY	873	40.0501-40.0599
32	EARTH SCIENCE, GEOLOGY, OCEAN		•
	ATMOSPHERIC SCIENCE & METEOROLOGY	872	40.0401
	EARTH & PLANETARY SCIENCES	874	40.0703
	GEOLOGY	875	40.0601
	GEOCHEMISTRY	876	40.0602
	GEOPHYSICS & SEISMOLOGY	876	40.0603
	PALEONTOLOGY	876	40.0604
	GEOLOGICAL SCIENCES, OTHER	876	40.0699
	OCEANOGRAPHY	877	40.0702
33	PHYSICS & ASTRONOMY		
	ASTRONOMY	871	40.0201
	ASTROPHYSICS	871	40.0301
	PHYSICS	878	40.0801-40.0899
34	OTHER PHYSICAL SCIENCES		
	PHYSICAL SCIENCES, GENERAL	879	40.0101
	METALLURGY	879	40.0701
	MISC PHYSICAL SCIENCES, OTHER	879	40.0799
	PHYSICAL SCIENCES, OTHER	879	40.9999



	1997 NSF CODE	1990 CIP ¹ CODE
4. Social sciences and related sciences		
41 ECONOMICS		
AGRICULTURAL ECONOMICS	601	01.0103
ECONOMICS	923	45.0601-45.0699
42 POLITICAL & RELATED SCIENCES		
PUBLIC POLICY ANALYSIS	902	44.0501
INTERNATIONAL REL & AFFAIRS	927	45.0901
POLITICAL SCIENCE & GOVERNMENT	928	45.1001-45.1099
43 PSYCHOLOGY		
EDUCATIONAL PSYCHOLOGY	704	13.0802
CLINICAL PSYCHOLOGY	891	42.0201
COUNSELING PSYCHOLOGY	892	42.0601
EXPERIMENTAL PSYCHOLOGY	893	42.0801
PSYCHOLOGY, GENERAL	894	42.0101
INDUSTRIAL/ORGANIZATIONAL PSYCH	895	42.0901
SOCIAL PSYCHOLOGY	896	42.1601
PSYCHOLOGY, OTHER	897	42.9999
COGNITIVE PSYCHOLOGY	897	42.0301
COMMUNITY PSYCHOLOGY	897	42.0401
DEVELOPMENTAL & CHILD PSYCH	897	42.0701
PHYSIOLOGICAL PSYCHOLOGY	897	42.1101
SCHOOL PSYCHOLOGY	897	42.1701
BIOPSYCHOLOGY	897	30.1001
44 SOCIOLOGY & ANTHROPOLOGY		
ANTHROPOLOGY	921	45.0201
ARCHEOLOGY	921	45.0301
CRIMINOLOGY	922	45.0401
SOCIOLOGY	929	45.1101
45 OTHER SOCIAL SCIENCES		
AREA STUDIES	620	05.0101-05.0199
ETHNIC & CULTURAL STUDIES	620	05.0201-05.0299
AREA, ETHNIC, CULT, OTHER	620	05.9999
LINGUISTICS	771	16.0102
PHILOSOPHY OF SCIENCE	861	45.0804 (PART)
GEOGRAPHY	924	45.0701-45.0702
HISTORY OF SCIENCE	925	45.0804 (PART)
URBAN AFFAIRS/STUDIES	930	45.1201
SOCIAL SCIENCES, OTHER	930	45.9999
SOCIAL SCIENCES, GENERAL	930	45.0101
DEMOGRAPHY/POP STUDIES	930	45.0501
PEACE & CONFLICT STUDIES	930	30.0501
GERONTOLOGY	930	30.1101
SCIENCE, TECHN, & SOCIETY	930	30.1501



	1997 NSF CODE	1990 CIP ¹ CODE
5. Engineering		
51 AERO & ASTRO ENGINEERING		
AERO & ASTRO ENGINEERING	721	14.0201
ALKO & ASTRO ENGINEERING	721	14.0201
52 CHEMICAL ENGINEERING		
CHEMICAL ENGINEERING	725	14.0701
CHENICALENGINEERING	123	14.0701
53 CIVIL & ARCHITECTURAL ENGIN		
CIVILENGINEERING	726	14.0801-14.0899
ARCHITECTURAL ENGINEERING	720 723	14.0401
ARCHITECTORAL ENGINEERING	123	14.0401
54 ELECTRICAL & COMPUTER ENGIN		
COMPUTER ENGINEERING	727	14.0901
SYSTEMS ENGINEERING	727	14.0901
ELECTRIC, ELECTRON, COMMEN	727	14.1001
ELLCTRIC, ELLCTRON, COMMEN	720	14.1001
55 INDUSTRIAL ENGINEERING		
INDUSTRIAL/MANUFACT ENGINEERING	733	14.1701
I DOSTALISMENOME EN ON DESCRITO	755	14.1701
56 MECHANICAL ENGINEERING		
MECHANICAL ENGINEERING	735	14.1901
	733	11.1701
57 OTHER ENGINEERING		
AGRICULTURAL ENGINEERING	722	14.0301
BIOENGIN & BIOMED ENGINEERING	724	14.0501
ENGINEERING MECHANICS	729	14.1101
ENGINEERING PHYSICS	729	14.1201
ENGINEERING SCIENCE	729	14.1301
ENVIRONMENTAL ENGINEERING	730	14.1401
ENGINEERING, GENERAL	731	14.0101
GEOPHYSICALENGINEERING	732	14.1601
MATERIALS ENGINEERING	734	14.1801
CERAMIC SCIENCES & ENGINEERING	734	14.0601
TEXTILE SCIENCES & ENGINEERING	734	14.2801
POLYMER/PLASTICS ENGINEERING	734	14.3201
	754	14.3201
METALLURGICAL ENGINEERING	736	14.2001
MINING & MINERAL ENGINEERING	737	14.2101
NAVAL ARCH & MARINE ENGINEERING	738	14.2201
NUCLEAR ENGINEERING	739	14.2301
PETROLEUM ENGINEERING	740	14.2501
ENGINEERING DESIGN	741	14.2901
ENGIN/INDUSTRIAL MANAGEMENT	741	14.3001
MATERIALS SCIENCE	741	14.3101
GEOLOGICALENGINEERING	741	14.1501
OCEAN ENGINEERING	741	14.2401
ENGINEERING, OTHER	741	14.9999
	· • •	
Categories & Fields		
OTHER, AGRI-BUSINESS & MANAGE	602	01.0101-01.0102
OTHER, AGRI-BUSINESS & MANAGE	602	01.0104-01.9999
ARCHITECTURE	610	ALL 04
BUSINESS MANAGEMENT	651-659	ALL 08, ALL 52
		•



Categories & Fields	1997 NSF CODE	1990 CIP ¹ CODE
COMMUNICATIONS	661-663	ALL 09
COMPUTER PROGRAMMING	672	11.0201
DATA PROCESSING TECHNOLOGY	675	11.0301
OTHER, CONSERVATION	682	03.0101
OTHER, CONSERVATION	682	03.0201-03.0501
OTHER, CONSERVATION	682	03.0506-03.9999
CRIMINAL JUSTICE/PROTECT SERVICES	690	ALL 43
EDUCATION	701-703	ALL 13 EXCEPT 13.0802
EDUCATION	705-713	"
ENGINEERING-RELATED TECH	751-754	ALL 15
ENGINEERING-RELATED TECH	751-754	48.0101-48.0199
ENGLISH LANGUAGE, LITERATURE	760	ALL 23
OTHER, FOREIGN LANGUAGE	772	16.0101
OTHER, FOREIGN LANGUAGE	772	16.0103-16.9999
HEALTH PROFESSIONS	781-791	ALL 51
HOME ECONOMICS	800	ALL 19, ALL 20
LAW/PRELAW/LEGAL STUDIES	810	ALL 22
LIBERAL ARTS	820	ALL 24
LIBRARY SCIENCE	830	ALL 25
PARKS, RECREATION, LEISURE	850	ALL 31
OTHER, PHILOSOPHY, RELIGION	862	ALL 38, ALL 39
PUBLIC ADMINISTRATION	901	44.0401
OTHER, PUBLIC AFFAIRS	903	44.0201,44.9999
SOCIAL WORK	910	44.0701
HISTORY, OTHER	926	45.0801-45.0803
HISTORY, OTHER	926	45.0805-45.0899
VISUAL & PERFORMING ARTS	941-944	ALL 50
OTHER FIELDS	995	ALL 10, ALL 12
OTHER FIELDS	995	29.0101
OTHER FIELDS	995	30.1201
OTHER FIELDS	995	30.1301
OTHER FIELDS	995	30.1401
OTHER FIELDS	995	30.9999
OTHER FIELDS	995	ALL 32 THRU 37
OTHER FIELDS	995	ALL 41, ALL 46, ALL 47
OTHER FIELDS	995	48.0201-48.9999
OTHER FIELDS	995	ALL 49

¹Classification of Instructional Programs



SECTION B. DETAILED STATISTICAL TABLES



SECTION B. DETAILED STATISTICAL TABLES

		Pag
High	alights	43
Su	MMARY TABLES	
Sum	mary Tables for 1995 and 1996 Bachelor's and Master's Degree Recipients	
S-1	Number of 1995 and 1996 science and engineering bachelor's degree recipients, by primary status, median salary, and major field of degree: April 1997	47
S-2	Number of 1995 and 1996 science and engineering master's degree recipients, by primary status, median salary, and major field of degree: April 1997	48
S-3	Number of 1995 and 1996 science and engineering bachelor's degree recipients, by primary status, median salary, sex, and major field of degree: April 1997	49
S-4	Number of 1995 and 1996 science and engineering master's degree recipients, by primary status, median salary, sex, and major field of degree: April 1997	50
S-5	Number of 1995 and 1996 science and engineering bachelor's degree recipients, by primary status, median salary, race/ethnicity, and major field of degree: April 1997	51
S-6	Number of 1995 and 1996 science and engineering master's degree recipients, by primary status, median salary, race/ethnicity, and major field of degree: April 1997	53
	TAILED $\overline{ ext{T}}\overline{ ext{ABLES}}$ racteristics of 1995 and 1996 Bachelor's and Master's Degree Recipients	
A-1	Number of 1995 and 1996 science and engineering bachelor's degree recipients, by sex, race/ethnicity, and major field of degree: April 1997	55
A-2	Number of 1995 and 1996 science and engineering master's degree recipients, by sex, race/ethnicity, and major field of degree: April 1997	56
A-3	Number of 1995 and 1996 science and engineering bachelor's degree recipients, by race/ethnicity, by sex, and major field of degree: April 1997	57
A-4	Number of 1995 and 1996 science and engineering master's degree recipients, by race/ethnicity, by sex, and major field of degree: April 1997	58
A-5	Number of 1995 and 1996 science and engineering bachelor's degree recipients, by age and major field of degree: April 1997	59
A-6	Number of 1995 and 1996 science and engineering master's degree recipients, by age and major field of degree: April 1997	60



		Page
A-7	Number of 1995 and 1996 science and engineering bachelor's degree recipients residing in the United States who are U.S. citizens and foreign-born, by major field of degree: April 1997	61
A-8	Number of 1995 and 1996 science and engineering master's degree recipients residing in the United States who are U.S. citizens and foreign-born, by major field of degree: April 1997	62
A-9	Number of 1995 and 1996 science and engineering bachelor's degree recipients residing in the United States who are native-born or naturalized U.S. citizens, and number who are permanent or temporary residents, by major field of degree: April 1997	63
A-10	Number of 1995 and 1996 science and engineering master's degree recipients residing in the United States who are native-born or naturalized U.S. citizens, and number who are permanent or temporary residents, by major field of degree: April 1997	64
Educ	eational Characteristics of 1995 and 1996 Bachelor's and Master's Degree Recipients	
B-1	Number of 1995 and 1996 science and engineering bachelor's degree recipients, by undergraduate grade point average (GPA) and major field of degree: April 1997	65
B-2	Number of 1995 and 1996 science and engineering master's degree recipients, by undergraduate grade point average (GPA) and major field of degree: April 1997	66
B-3	Number of 1995 and 1996 science and engineering bachelor's degree recipients who attended community college and who earned associate's degrees, by major field of bachelor's degree: April 1997	67
B-4	Number of 1995 and 1996 science and engineering master's degree recipients who attended community college and who earned associate's degrees, by major field of master's degree: April 1997	68
B-5	Number of 1995 and 1996 science and engineering bachelor's degree recipients who received financial support from various sources for those degrees, by major field of degree: April 1997	69
B-6	Number of 1995 and 1996 science and engineering master's degree recipients who received financial support from various sources for those degrees, by major field of degree: April 1997	70
B-7	Number of 1995 and 1996 science and engineering bachelor's degree recipients, by amount borrowed for undergraduate education and major field of degree: April 1997	71
B-8	Number of 1995 and 1996 science and engineering master's degree recipients, by amount borrowed for undergraduate and graduate education and major field of degree: April 1997	72



		Ра
B-9	Number of 1995 and 1996 science and engineering bachelor's degree recipients, by amount owed for undergraduate loan and major field of degree: April 1997	73
B-10	Number of 1995 and 1996 science and engineering master's degree recipients, by amount owed for undergraduate and graduate loans and major field of degree: April 1997	74
B-11	Number of 1995 and 1996 science and engineering bachelor's degree recipients who have taken additional courses since most recent degree and enrollment status on April 15, 1997, by major field of degree: April 1997	75
B-12	Number of 1995 and 1996 science and engineering master's degree recipients who have taken additional courses since most recent degree and enrollment status on April 15, 1997, by major field of degree: April 1997	76
B-13	Number of 1995 and 1996 science and engineering bachelor's degree recipients who have not taken courses since most recent degree, and likelihood they will take additional courses, by major field of degree: April 1997	77
B-14	Number of 1995 and 1996 science and engineering master's degree recipients who have not taken courses since most recent degree, and likelihood they will take additional courses, by major field of degree: April 1997	78
B-15	Number of 1995 and 1996 science and engineering bachelor's degree recipients who took courses between completing most recent degree and April 15, 1997, and type of degree sought, by major field of degree: April 1997	79
B-16	Number of 1995 and 1996 science and engineering master's degree recipients who took courses between completing most recent degree and April 15, 1997, and type of degree sought, by major field of degree: April 1997	80
B-17	Number of 1995 and 1996 science and engineering bachelor's degree recipients, by highest degree expected and major field of degree: April 1997	81
B-18	Number of 1995 and 1996 science and engineering master's degree recipients, by highest degree expected and major field of degree: April 1997	82
Labo	r Force Status of 1995 and 1996 Bachelor's and Master's Degree Recipients	
C-1	Number of 1995 and 1996 science and engineering bachelor's degree recipients who are employed, employed full time and part time counting all jobs, employed full time and part time at principal job only, and number who have a second job, by major field of degree: April 1997	83
C-2	Number of 1995 and 1996 science and engineering master's degree recipients who are employed, employed full time and part time counting all jobs, employed full time and part time at principal job only, and number who have a second job, by major field of degree: April 1997	84



C-3	Number of 1995 and 1996 science and engineering bachelor's degree recipients who are employed, unemployed, and not in the labor force, by major field of degree: April 1997	
C-4	Number of 1995 and 1996 science and engineering master's degree recipients who are employed, unemployed, and not in the labor force, by major field of degree: April 1997	
C-5	Number of 1995 and 1996 science and engineering bachelor's degree recipients not studying full time, by employment status and major field of degree: April 1997	
C-6	Number of 1995 and 1996 science and engineering master's degree recipients not studying full time, by employment status and major field of degree: April 1997	
C-7	Number of 1995 and 1996 science and engineering bachelor's degree recipients who are not working, and reasons for not working, by major field of degree: April 1997	
C-8	Number of 1995 and 1996 science and engineering master's degree recipients who are not working, and reasons for not working, by major field of degree: April 1997	
Occu	pational Characteristics of 1995 and 1996 Bachelor's and Master's Degree Recipi	ents
D-1	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by occupation and major field of degree: April 1997	
D-2	Number of employed 1995 and 1996 science and engineering master's degree recipients, by occupation and major field of degree: April 1997	
D-3	Number of 1995 and 1996 science and engineering bachelor's degree recipients who have had a career path job since being awarded most recent degree, and number not having career path job who are seeking one, by sex and major field of degree: April 1997	
D-4	Number of 1995 and 1996 science and engineering master's degree recipients who have had a career path job since being awarded most recent degree, and number not having a career path job who are seeking one, by sex and major field of degree: April 1997	
D-5	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients having job closely, somewhat, and not related to degree, by major field of degree: April 1997	
D-6	Number of employed 1995 and 1996 science and engineering master's degree recipients having job closely, somewhat, and not related to degree, by major field of degree: April 1997	
D-7	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by sex, race/ethnicity, and occupation: April 1997	



		Page
D-8	Number of employed 1995 and 1996 science and engineering master's degree recipients, by sex, race/ethnicity, and occupation: April 1997	100
D-9	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by age and occupation: April 1997	101
D-10	Number of employed 1995 and 1996 science and engineering master's degree recipients, by age and occupation: April 1997	102
D-11	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by primary work activity and major field of degree: April 1997	103
D-12	Number of employed 1995 and 1996 science and engineering master's degree recipients, by primary work activity and major field of degree: April 1997	104
D-13	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by primary work activity and occupation: April 1997	105
D-14	Number of employed 1995 and 1996 science and engineering master's degree recipients, by primary work activity and occupation: April 1997	106
D-15	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients whose work is supported by Federal Government, and agency giving support, by major field of degree: April 1997	107
D-16	Number of employed 1995 and 1996 science and engineering master's degree recipients whose work is supported by Federal Government, and agency giving support, by major field of degree: April 1997	108
D-17	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by occupation and work-related training: April 1997	109
D-18	Number of employed 1995 and 1996 science and engineering master's degree recipients, by occupation and work-related training: April 1997	110
D-19	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by sector of employment and work-related training: April 1997	111
D-20	Number of employed 1995 and 1996 science and engineering master's degree recipients, by sector of employment and work-related training: April 1997	112
D-21	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by occupation and job satisfaction: April 1997	113
D-22	Number of employed 1995 and 1996 science and engineering master's degree recipients, by occupation and job satisfaction: April 1997	114



Employer Characteristics of 1995 and 1996 Bachelor's and Master's Degree Recipients						
E-1	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by sector of employment and occupation: April 1997	115				
E-2	Number of employed 1995 and 1996 science and engineering master's degree recipients, by sector of employment and occupation: April 1997	116				
E-3	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by sector of employment and major field of degree: April 1997	117				
E-4	Number of employed 1995 and 1996 science and engineering master's degree recipients, by sector of employment and major field of degree: April 1997	118				
E-5	Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by sector of employment and employment benefits: April 1997	119				
E-6	Number of employed 1995 and 1996 science and engineering master's degree recipients, by sector of employment and employment benefits: April 1997	120				
Sala	ries of 1995 and 1996 Bachelor's and Master's Degree Recipients					
F-1	Median salary of full-time employed 1995 and 1996 bachelor's degree recipients, by sex, race/ethnicity, and major field of degree: April 1997	121				
F-2	Median salary of full-time employed 1995 and 1996 master's degree recipients, by sex, race/ethnicity, and major field of degree: April 1997	122				
F-3	Median salary of full-time employed 1995 and 1996 bachelor's degree recipients, by sex, race/ethnicity, and occupation: April 1997	123				
F-4	Median salary of full-time employed 1995 and 1996 master's degree recipients, by sex, race/ethnicity, and occupation: April 1997	124				
F-5	Median salary of full-time employed 1995 and 1996 bachelor's degree recipients, by broad sector of employment and major field of degree: April 1997	125				
F-6	Median salary of full-time employed 1995 and 1996 master's degree recipients, by broad sector of employment and major field of degree: April 1997	126				
F-7	Median salary of full-time employed 1995 and 1996 bachelor's degree recipients, by broad sector of employment and occupation: April 1997	127				
F-8	Median salary of full-time employed 1995 and 1996 master's degree recipients, by broad sector of employment and occupation: April 1997	128				



HIGHLIGHTS

Characteristics of 1995 and 1996 Bachelor's and ◆ Master's Degree Recipients

- ◆ In 1995 and 1996, about 708,900 persons earned bachelor's degrees in the sciences and engineering (S&E) from U.S. colleges and universities, and about 149,500 persons earned S&E master's degrees (tables A-1 and A-2).
- Among 1995 and 1996 bachelor's S&E degree recipients, slightly more than half were males. Over two-thirds of computer and information science baccalaureates were male, and over four-fifths of engineering baccalaureates were male. Over two-thirds of psychology baccalaureates were female (table A-1).
- ◆ About 60 percent of S&E master's degree recipients were male and 40 percent were female (table A-2). Again, males earned a higher proportion of master's degrees in computer and information sciences and engineering, while females earned a higher proportion of the master's degrees in psychology.
- Black and Hispanic graduates each represented about 7 percent of 1995 and 1996 S&E baccalaureates, and Asians and Pacific Islanders represented 9 percent. About 1 percent of S&E baccalaureates were American Indian or Alaskan Native (table A-1).
- Black and Hispanic graduates each represented about 5 percent of 1995 and 1996 master's degree recipients, and Asians and Pacific Islanders represented 21 percent (over twice their representation among baccalaureates). Only about one-half of one percent of S&E master's graduates were American Indian or Alaskan Native (table A-2).
- In 1997, about 58 percent of recent S&E bachelor's degree recipients were less than 25 years old and 29 percent were age 25 to age 29. Only 13 percent were over the age of 30 (table A-5). Among master's graduates, the modal age group was age 25 to 29, representing 47 percent of 1995 and 1996 master's degree recipients. About 25 percent were age 30 to 34, and another 24 percent were over age 35 (table A-6).

♦ About 95 percent of 1995 and 1996 S&E baccalaureates were U.S. citizens (table A-7). However, among master's degree recipients, a smaller percentage, 78 percent, were U.S. citizens (table A-8).

Educational Characteristics of 1995 and 1996 Bachelor's and Master's Degree Recipients

- Nearly half of recent S&E bachelor's degree recipients (48 percent) and about two-thirds of master's degree recipients (65 percent) reported undergraduate GPAs of 3.25 or higher (tables B-1 and B-2).
- ◆ About 300,000, or 42 percent, of the 708,900 recent baccalaureates in S&E reported that they had attended a community college, and about 93,800, or 13 percent, had earned associate's degrees (table B-3). Among master's degree recipients, about one third (50,100) reported attending a community college, and about 10 percent (14,500) had associate's degrees (table B-4).
- ◆ Sources of financial support for 1995 and 1996 bachelor's degrees in S&E were quite varied (table B-5). More than half of graduates reported using earnings from employment; gifts from parents or relatives; scholarships, grants, or fellowships; and loans from a college, bank, or government. About 26 percent of baccalaureates reported assistantships or work-study as sources of college funds. About 7 percent reported employer assistance, 9 percent reported loans from parents or relatives, and 2 percent reported other sources of support.
- More than half of master's degree recipients reported earnings from employment and scholarships, grants, or fellowships as sources of support, and nearly half reported assistantships or work-study (table B-6). Gifts from parents or relatives were another important source of support, reported by about 35 percent master's graduates. Compared to baccalaureates, a much larger percentage of master's degree recipients reported employer support (27 percent).
- Over one-third of all bachelor's degree recipients
 (39 percent) borrowed \$10,000 or more for their



44

undergraduate education, and 28 percent of them still owed \$10,000 or more as of April 15, 1997 (tables B-7 and B-9).

- Among master's graduates, the findings are comparable: 37 percent borrowed \$10,000 or more, and 24 percent still owed \$10,000 or more as of April 15, 1997 (tables B-8 and B-10).
- Nearly half of 1995 and 1996 S&E bachelor's degree recipients (48 percent) reported that they had taken additional courses since earning their most recent degree (that is, the most recent degree as of the survey reference week of April 15, 1997). About 21 percent were full-time students (table B-11).
- About 41 percent of 1995 and 1996 master's degree recipients had taken courses since their most recent degree; 21 percent were full-time students (table B-12).
- ◆ Among those baccalaureates who had not taken additional courses since their most recent degree, 66 per-cent reported that it was very likely that they would do so in the future (table B-13). About 53 percent of master's graduates who had not taken courses reported that it was very likely they would do so (table B-14).
- Only 9 percent of recent S&E bachelor's degree recipients reported that they expected a bachelor's degree to be their highest degree (table B-17). About 53 percent reported that they expected their highest degree to be a master's degree, 27 percent expected their highest degree to be a doctorate, and about 11 percent expected to earn a professional degree.
- More than half of recent S&E master's graduates (54 percent) expected to earn a doctorate, and a small percentage (about 4 percent) expected to earn a professional degree (table B-18).

Employment Status of 1995 and 1996 Bachelor's and Master's Degree Recipients

 About 605,900 (85 percent) recent S&E bachelor's degree recipients were employed in April 1997 (table C-1). Of these, 519,200 were employed full time when all jobs are considered, and 487,700

- were employed full time when only the principal job is considered. About 3 percent of bachelor's graduates were unemployed (that is, not working and looking for work or on layoff from a job). About 11 percent of recent bachelor's degree recipients were not in the labor force (that is, neither working nor looking for work) (table C-3).
- ♦ About 135,800 master's degree recipients (91 percent) were employed (table C-2). When counting all jobs, 116,000 were employed full time; 107,500 were employed full time when only the principal job was considered. About 2 percent of master's graduates were unemployed, and about 7 percent were not in the labor force (table C-4).
- ◆ Among both bachelor's and master's degree recipients, the majority of those not in the labor force were full-time students. Being a student was the most common reason for not working among both bachelor's graduates and master's graduates (tables C-7 and C-8). The next most common reason for both groups was that the graduate either did not need or did not want to work. About 17 percent of bachelor's graduates and 16 percent of master's graduates not working reported that a suitable job was not available.

Occupational Characteristics of 1995 and 1996 Bachelor's and Master's Degree Recipients

- ♦ About 69 percent of employed 1995 and 1996 S&E bachelor's degree recipients had non-S&E jobs in April 1997 (table D-1). Those with degrees in the sciences were far more likely than those with degrees in engineering to be employed in non-S&E fields (79 percent versus 21 percent). In contrast, only 34 percent of master's degree recipients were employed in non-S&E jobs; 45 percent of those with degrees in the sciences, and 9 percent of those with degrees in engineering (table D-2).
- ♦ Nearly half of S&E bachelor's degree recipients (47 percent) reported that they had career path jobs. About 40 percent of those without career path jobs reported that they were seeking such a position (table D-3). About 65 percent of S&E master's degree recipients reported holding career path jobs; of those who did not, 30 percent reported that they were seeking a career path job (table D-4).



- ◆ About 40 percent of employed S&E bachelor's graduates reported that their jobs were closely related to the field of their degree, and another 29 percent reported that they were somewhat related (table D-5). A greater proportion of master's degree recipients, 66 percent, reported holding jobs closely related to their degree fields, and another 25 percent reported jobs somewhat related to their degrees (table D-6).
- ◆ Female recipients of S&E baccalaureates were far more likely than males to hold non-S&E jobs (80 percent of females and 59 percent of males) (table D-7). Similarly, higher percentages of female master's degree recipients held non-S&E jobs than did their male counterparts (48 percent versus 25 percent) (table D-8). This may reflect to the fact that women are more likely to earn social sciences degrees that are more likely to lead to non S&E jobs and men are more likely to earn engineering degrees that more often lead to S&E jobs.
- ◆ Among employed S&E bachelor's degree graduates, the most commonly reported primary work activity was management, sales, and administration, reported by 38 percent of baccalaureates (table D-11). Research and development (R&D) was reported by 18 percent of graduates, and computer applications by 14 percent. About 12 percent of baccalaureate graduates reported teaching as their primary activity.
- ◆ The pattern of primary work activities was rather different for master's degree recipients (table D-12). R&D was the most commonly reported primary work activity (30 percent of employed master's graduates), followed by computer applications (21 percent), and management, sales, and administration (20 percent). About 13 percent of master's graduates reported teaching as their primary activity, a percentage very similar to bachelor's degree recipients.
- ♦ About 12 percent of employed 1995 and 1996 S&E bachelor's degree recipients reported that their work was supported by Federal Government agencies, including 12 percent of science graduates and 15 percent of engineering graduates (table D-15). Federal support was reported by 19 percent of employed master's degree recipients, with the

- same proportion of science graduates and of engineering graduates reporting Federal support (table D-16).
- ◆ Large percentages of both bachelor's and master's degree recipients reported participating in workrelated training. The most common form of training for both degree levels was technical training in their occupational field, reported by 55 percent of bachelor's graduates and 59 percent of master's graduates. Fewer graduates received management training, general professional training, or other training (tables D-17 and D-18).
- ♦ About 40 percent of employed S&E bachelor's graduates reported that they were very satisfied with their jobs; an additional 42 percent reported being somewhat satisfied. About 18 percent reported being somewhat or very dissatisfied with their jobs (table D-21). The distribution is fairly similar for master's graduates: 46 percent reported that they were very satisfied, 41 percent somewhat satisfied, and 13 percent were somewhat or very dissatisfied (table D-22).

Employer Characteristics of 1995 and 1996 Bachelor's and Master's Degree Recipients

- ◆ About 69 percent of employed recent S&E bachelor's degree recipients worked in the private sector (excluding educational institutions) in April 1997, the great majority of these in private, forprofit companies (table E-1). About 21 percent of the employed graduates worked in the educational sector, and 10 percent in government.
- ◆ Among employed recent S&E master's degree recipients, the distribution across sectors was somewhat different—specifically, a greater proportion (30 percent) of master's graduates were employed in the education sector (table E-2). About 59 percent of recent master's degree graduates who were employed worked in the private sector (excluding educational institutions), 30 percent in the educational sector, and 11 percent in government.
- About 75 percent of employed bachelor's graduates and 83 percent of master's graduates had health insurance that was at least partially paid by their employers (tables E-5 and E-6). Paid vacation or



sick leave was reported by 75 percent of bachelor's and 79 percent of master's degree recipients. A majority of graduates also had a pension or retirement plan to which their employer contributed (59 percent of bachelor's and 66 percent of master's recipients). Smaller percentages had a profit-sharing plan (31 percent of bachelor's and 30 percent of master's recipients).

Salaries of 1995 and 1996 Bachelor's and Master's Degree Recipients

- ◆ Recent bachelor's degree recipients in S&E fields who were employed full time had a median annual salary of about \$27,500 annually as of April 1997 (table F-1). The median salary was higher for those with engineering degrees (\$38,000) than for those with degrees in the sciences (\$25,000).
- ♦ The median salary for recent master's degree recipients who were employed full time was \$42,000 in April 1997 (table F-2). Again, the median annual salary for those with engineering degrees was higher than for those in the sciences (\$48,500 versus \$37,400).
- ◆ At both the bachelor's and master's levels, male graduates had higher salaries than female graduates—\$30,500 versus \$24,000 at the bachelor's

- level and \$47,000 versus \$35,000 at the master's level. This overall difference primarily reflects two factors: (1) disparities in salaries between males and females with degrees in the sciences, and (2) a much higher proportion of males majoring in engineering where the median salary was higher although males and females with engineering degrees had more similar salaries.
- ◆ Comparisons by occupational field reveal that, among bachelor's graduates, those with S&E jobs had higher salaries than those with non-S&E jobs (table F-3). The median salary was \$34,000 for scientists, \$39,000 for engineers, and \$24,400 for other occupations. In the sciences and in non-S&E occupations, males earned higher salaries than females, on average; this was not observed among engineers. Differences by occupational field were similar for master's degree recipients, although salaries were higher (table F-4).
- ◆ Baccalaureate graduates employed in private industry earned more, on average (\$30,000), than those in the education sector (\$22,000) or those in government (\$25,000) (table F-5). At the master's degree level, however, the salaries of those in private industry and in government were more similar (\$45,000 versus \$42,000), while salaries of those in the education sector were lower (\$32,500) (table F-6).



47 46

Table S-1. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by primary status, median salary, and major field of degree: April 1997

		Р	Primary education and employment status				
				lot full-time studer	nt	1	
Major field of 1995-96 S&E bachelor's degree	Total recipients	Full-time student	Employed in science and engineering	Employed in other occupation	Not employed and not full-time student	Median salary for full-time employed ¹	
All science and engineering fields	708,900	150,300	148,600	375,800	34,200	\$27,500	
Major type							
Total science	593,800	135,200	73,200	355,100	30,200	25,000	
Total engineering	115,100	15,200	75,400	20,700	3,900	38,000	
Major field							
Computer and information sciences	41,000	S	23,400	14,000	s	38,000	
Life and related sciences, total	139,000	43,000	15,100	74,300	6,500	23,500	
Agricultural and food sciences	14,000	1,800	1,600	10,200	s	23,500	
Biological sciences	115,300	40,100	11,800	57,600	5,800	23,000	
Environmental life sciences including							
forestry science	9,700	S	S	6,600	S	25,000	
Mathematical and related sciences	26,800	5,100	4,000	16,900	s	28,000	
Physical and related sciences, total	36,600	14,000	9,500	11,900	1,200	27,000	
Chemistry, except biochemistry	20,100	8,600	5,200	5,700	S	27,000	
Earth sciences, geology, and						·	
oceanography	9,200	2,200	2,400	4,200	S	25,000	
Physics and astronomy		3,100	1,900	1,800	S	31,200	
Other physical sciences	S	S	S	S	S	S	
Psychology	138,000	32,800	8,700	89,400	7,100	22,000	
Social and related sciences, total	212,400	38,000	12,500	148,600	13,400	25,000	
Economics	33,300	3,500	3,300	25,300	S	30,000	
Political science and related sciences	72,900	16,300	3,500	49,000	4,100	26,000	
Sociology and anthropology	66,900	11,100	S	46,600	5,800	21,500	
Other social sciences	39,300	7,000	2,500	27,600	2,300	25,000	
Engineering, total	115,100	15,200	75,400	20,700	3,900	38,000	
Aerospace and related engineering	3,000	700	1,500	800	s	35,500	
Chemical engineering	11,600	2,000	7,500	1,700	s	42,000	
Civil and architectural engineering	20,700	2,800	13,000	4,200	s	32,000	
Electrical, electronic, computer and							
communications engineering		3,400	23,000	5,100	S	40,000	
Industrial engineering		500	3,800	1,400	S	37,000	
Mechanical engineering		3,000	19,900	4,200	s	39,000	
Other engineering	13,200	2,800	6,800	3,300	S	35,700	

¹ Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table S-2. Number of 1995 and 1996 science and engineering master's degree recipients, by primary status, median salary, and major field of degree: April 1997

median salary, and major held of de	9	Primary education and employment status]		
			Not full-time student			_	
Major field of 1995-96 S&E master's degree	Total recipients	Full-time student	Employed in science and engineering	Employed in other occupation	Not employed and not full-time student	Median salary for full-time employed ¹	
All science and engineering fields	149,500	30,900	72,600	41,000	5,000	\$42,000	
Major type							
Total science	102,500	24,000	37,600	36,800	4,100	37,400	
Total engineering	47,000	6,800	35,000	4,200	900	48,500	
Major field							
Computer and information sciences	18,200	s	13,400	3,300	s	50,000	
Life and related sciences, total	15,300	4,900	5,800	4,200	s	32,000	
Agricultural and food sciences	2,500	S	1,300	S	s	31,000	
Biological sciences	10,500	4,000	3,200	2,800	l s	32,000	
Environmental life sciences including							
forestry sciences	2,400	S	1,200	S	S	36,000	
Mathematical and related sciences	7,900	2,200	3,000	2,500	s	40,000	
Physical and related sciences, total	9,700	3,500	4,100	1,700	s	35,000	
Chemistry, except biochemistry	3,900	1,700	1,500	S	S	31,500	
Earth sciences, geology, and							
oceanography		s s	1,300	S	s	32,000	
Physics and astronomy		1,300	1,200	S	s	41,000	
Other physical sciences	S	S	S	S	s	S	
Psychology	26,400	5,900	7,700	11,400	s	30,000	
Social and related sciences, total	25,100	6,500	3,700	13,700	1,200	35,000	
Economics	4,100	1,600	S	1,500	S	40,000	
Political science and related sciences	8,100	2,300	S	4,500	S	35,000	
Sociology and anthropology	4,200	1,500	S	1,700	S	28,000	
Other social sciences	8,700	S	1,300	5,900	s	36,000	
Engineering, total	47,000	6,800	35,000	4,200	900	48,500	
Aerospace and related engineering	1,500	400	800	S	S	48,000	
Chemical engineering	2,000	700	1,200	S	S	49,000	
Civil and architectural engineering	6,500	S	5,000	s	S	40,000	
Electrical, electronic, computer and				1			
communications engineering	16,100	2,400	12,500	1,100	S	54,000	
Industrial engineering	3,200	S	2,200	s	S	49,000	
Mechanical engineering		1,200	5,200	s	S	47,000	
Other engineering	10,400	1,000	8,200	S	S	47,500	

Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table S-3. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by primary status,

median salary, sex, and major field of degree: April 1997

		<u></u> <u></u>	rimary education a	and employment sta	itus	J
1				Not full-time studen	t	
	Ì		Employed in		Not employed	Median salary fo
Major field of 1995-96 S&E bachelor's degree	Total recipients	Full-time	science and	Employed in other	and not full-time	full-time
Major field of 1995-96 S&E bacfield's degree	Total recipients	student	engineering	occupation	student	employed ¹
All science and engineering fields	708,900	150,300	148,600	375,800	34,200	\$27,500
Total science						
Male	271,600	61,900	45,800	155,400	8,400	27,800
Female	322,200	73,200	27,400	199,700	21,800	23,000
Computer and information sciences						
Male	29,300	S	17,600	9,500	S	38,000
Female	11,800	S	5,800	4,400	S	36,400
Life and related sciences						
Male	67,100	22,000	8,100	35,200	s	25,000
Female	71,900	21,000	7,100	39,200	4,700	22,000
Mathematical and related sciences	,	·	•			
Male	13,500	2,500	2,500	8,200	l s	30,000
Female	13,300	2,600	1,500	8,700	s	28,000
Physical and related sciences	,	_,	.,			
Male	23,400	8,400	7,000	7,100	900	29,000
Female	13,200	5,600	2,500	4,800	s	23,000
į	13,200	3,000	2,300	4,000	١	1 20,000
Psychology	39,000	8,900	3,700	25,700	s	22,500
Male				63,800	_	22,000
Female	99,000	23,900	5,000	63,600	6,300	22,000
Social and related sciences				00.000		07.00
Male	99,300	18,500	6,900	69,800	4,000	27,000
Female	113,100	19,400	5,600	78,700	9,300	24,000
Total engineering						
Male	94,800	11,900	62,400	17,200	3,200	38,000
Female	20,300	3,300	12,900	3,500	700	38,000
Aerospace and related engineering						
Male	2,700	600	1,300	800	S	35,000
Female	300	S	200	s	S	37,000
Chemical engineering						
Male	7,800	1,500	5,100	1,100	s	42,00
Female	3,800	s	2,500	s	l s	41,00
Civil and architectural engineering	,,,,,	_				ĺ ,
Male	16,900	2,100	10,300	3,900	s	32,00
Female	3,700	S	2,700	s	s	33,00
	0,700		2,700	1		30,550
Electrical, electronic, computer and						
communications engineering	20 000	0.700	20 500	4,400	s	40,00
Male	28,900	2,700	20,500		s	1
Female	4,000	S	2,500	S)	40,000
Industrial engineering		_				
Male	4,100	S	2,800	900	S	37,00
Female	1,700	s	1,100	500	s	37,20
Mechanical engineering					1	
Male		2,400	17,200	3,800	s	38,50
Female	3,700	S	2,600	S	S	39,00
Other engineering						
Male	10,100	2,200	5,400	2,200	s	36,00
Female	3,100	s	1,400		s	35,00

¹ Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table S-4. Number of 1995 and 1996 science and engineering master's degree recipients, by primary status, median salary, sex, and major field of degree: April 1997

		Р	tus			
Major field of 1995-96 S&E master's degree	Total recipients	. Full-time student	Employed in science and engineering	Not full-time studen Employed in other occupation	Not employed and not full-time student	Median salary fo full-time employed ¹
All science and engineering fields	149,500	30,900	72,600	41,000	5,000	\$42,000
Total science						
Male	50,100	12,500	22,000	14,400	1,200	42,600
Female	52,500	11,500	15,600	22,400	2,900	33,000
	02,000	11,000	10,000	22,400	2,300	33,000
Computer and information sciences						
Male	13,800	s	10,300	2,400	S	50,000
Female	4,400	s	3,100	S	S	48,000
Life and related sciences						
Male	8,000	2,700	3,200	2,000	S	32,000
Female	7,400	2,200	2,600	2,100	S	32,300
Mathematical and related sciences				ļ		
Male	4,700	1,400	1,800	1,400	S	42,000
Female	3,200	S	1,100	1,100	S	35,500
Physical and related sciences						
Male	7,000	2,700	3,100	1,100	S	37,500
Female	2,700	900	1,000	700	. S	31,000
Psychology						
Male	5,900	1,500	s	2,500	S	29,000
Female	20,500	4,400	6,200	8,900	s	30,000
Social and related sciences			ŕ	,		
Male	10,700	3,300	2,100	5,000	s	37,000
Female	14,400	3,200	1,700	8,600	S	33,000
Total anginopring						
Total engineering Male	20 000	E 000	00 700	0.700		40.000
Female	38,900 8,100	5,800 1,100	28,700 6,400	3,700 S	S S	49,000 47,500
Acrospose and related environmen	·		,			,
Aerospace and related engineering Male	1,300	400	700			40.000
	1,300 S	400 S	700 S	S	S	49,000
Female	3		3	s	S	S
Chemical engineering	4 400	500	000	ام		45.000
Male	1,400	500	800	S	S	49,000
Female	600	s	500	S	S	49,000
Civil and architectural engineering	5 000	ا ا	0.700	ا ا	ا ۾	
Male	5,000	S	3,700	S	S	42,000
Female	1,500	s	1,300	S	S	35,000
Electrical, electronic, computer and						
communications engineering				\		
Male	13,700	2,000	10,700	900	S	53,400
Female	2,500	S	1,800	S	S	55,000
Industrial engineering						
Male	2,600	S	1,800	S	S	49,000
Female	S	s	S	s	S	s
Mechanical engineering						
Male	6,400	1,000	4,500	s	S	46,000
Female	S	s l	S	s	s	s
Other engineering				j		
Male	8,600	s	6,600	s	s	47,700
Female	1,800	s	1,600	l s	s	46,000

¹ Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table S-5. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by primary status, median salary, race/ethnicity, and major field of degree: April 1997

Page 1 of 2

· · · · · · · · · · · · · · · · · · ·	-		nary education a			Page 1012
		·				
			Not full-time student			ı
14 1 Coll of 4005 00 005 have below	* -4-1	C 4:	Employed in	Employed in	Not employed	Median salary
Major field of 1995-96 S&E bachelor's	Total	Full-time	science and	other	and not full-	for full-time
degree	recipients	student	engineering	occupation	time student	employed1
		_				Giripioyou
All science and engineering fields	708,900	150,300	148,600	375,800	34,200	-\$27,500
Total science						
White, non-Hispanic	455,800	100,800	57,100	276,300	21,600	25,000
Black, non-Hispanic	42,800	8,200	4,200	27,900	2,500	24,000
Hispanic	41,100	9,000	4,400	25,100	2,600	24,000
Asian or Pacific Islander	49,000	15,800	7,200	22,600	3,400	28,800
American Indian/Alaskan Native	5,100	1,400	S	3,200	S	24,000
Computer and information sciences						
White, non-Hispanic	28,600	S	17,900	8,700	S	38,000
Black, non-Hispanic		S	2,000	2,000	s	35,000
Hispanic		S	s	1,100	s	34,000
Asian or Pacific Islander	5,700	S	2,400	S	s	40,000
American Indian/Alaskan Native	S	S	S	S	s	s
Life and related sciences						
White, non-Hispanic	109,800	30,200	13,100	62,400	4,100	23,000
Black, non-Hispanic		1,700	Ś	3,600	s	22,900
Hispanic		2,900	s	3,000	s	25,000
Asian or Pacific Islander	15,000	8,000	s	4,900	s	25,000
American Indian/Alaskan Native	S	S	S	s	s	s
Mathematical and related sciences						
White, non-Hispanic	21,200	4,000	2,800	13,800	s	28,000
Black, non-Hispanic	1,800	S	S	1,000	S	30,000
Hispanic	1,100	S	s	s	S	S
Asian or Pacific Islander	2,600	S	s	s	S	S
American Indian/Alaskan Native	s	S	s	s	S	s
Physical and related sciences						
White, non-Hispanic	30,000	11,500	8,100	9,800	S	27,000
Black, non-Hispanic	1,700	600	400	700	S	23,000
Hispanic	1,100	S	S	400	S	22,000
Asian or Pacific Islander		1,400	S	S	S	27,700
American Indian/Alaskan Native	S	S	S	S	S	S
Psychology						
White, non-Hispanic		26,400	6,100	68,000	5,000	22,000
Black, non-Hispanic	11,300	2,100	S	8,000	S	23,000
Hispanic		2,000	S	9,500	S	23,000
Asian or Pacific Islander	5,800	S	S	S	S	S
American Indian/Alaskan Native	S	S	S	S	S	s
Social and related sciences				,,,,,,,		
White, non-Hispanic		27,500	9,100	113,600	10,600	25,000
Black, non-Hispanic		3,500	S	12,600	1,200	23,000
Hispanic		3,600	S	10,600	S	25,000
Asian or Pacific Islander		3,000	S	10,200	S	28,000
American Indian/Alaskan Native	2,000	<u> </u>	S	S	S	<u> </u>

See end of table for notes and source.



51

Table S-5. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by primary status, median salary, race/ethnicity, and major field of degree: April 1997

Page 2 of 2

		Prir	Primary education and employment status			
			Not full-time student			
Major field of 1995-96 S&E bachelor's degree	Total recipients	Full-time student	Employed in science and engineering	Employed in other occupation	Not employed and not full- time student	Median salary for full-time employed ¹
Total engineering					·	
White, non-Hispanic	85,000	9,900	57,500	15,000	2,600	\$38,000
Black, non-Hispanic	6,500	1,100	3,500	1,500	s	37,000
Hispanic	7,500	1,500	4,500	1,300	s	36,000
Asian or Pacific Islander	15,500	2,600	9,500	2,700	S	40,000
American Indian/Alaskan Native	600	S	S	S	S	l s

¹ Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

KEY:

S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of

data reliability.

NOTES:

Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table S-6. Number of 1995 and 1996 science and engineering master's degree recipients, by primary status, median salary, race/ethnicity, and major field of degree: April 1997

Page 1 of 2

						Page 1 of 2
		Prim	ary education ar			
			N	ot full-time stude	ent	
			Employed in	Employed in	Not employed	Median salary
Major field of 1995-96 S&E master's degree	Total	Full-time	science and	other	and not full-	for full-time
major noid of 1000 to the matter of dog. of	recipients	student	engineering	occupation	time student	employed1
All science and engineering fields	149,500	30,900	72,600	41,000	5,000	\$42,000
Total science						
White, non-Hispanic	74,200	16,800	25,100	29,100	3,100	35,000
Black, non-Hispanic	5,500	1,400	1,500	2,300	S	35,000
Hispanic		1,300	1,400	2,000	S	32,000
Asian or Pacific Islander	17,300	4,400	9,500	3,000	S	47,000
American Indian/Alaskan Native	S	S	S	S	S	S
Computer and information sciences						
White, non-Hispanic	8,900	S	6,100	1,700	S	50,000
Black, non-Hispanic	700	S	l s	S	S	42,000
Hispanic		S	S	S	S	S
Asian or Pacific Islander	8,200	S	6,700	S	· s	50,000
American Indian/Alaskan Native	S	S	s	S	S	S
Life and related sciences		•				
White, non-Hispanic	12,100	3,100	4,900	3,600	s	32,000
Black, non-Hispanic		s	l s	s	s	S
Hispanic		S	s	s	s	s
Asian or Pacific Islander	_	1,400	S	s	S	s
American Indian/Alaskan Native		S	s	S	S	•
Mathematical and related sciences						
White, non-Hispanic	5,400	1,300	1,900	2,000	S	40,000
Black, non-Hispanic		,,,,,,	i 1,555	, z,555	S	l S
Hispanic		s	İš	s	S	s
Asian or Pacific Islander		s	l š	S	S	S
American Indian/Alaskan Native		S	l š	s	S	Š
American indian/Alaskan Nauve	3					
Physical and related sciences	0.700	0.400	0.000	1.000		22.000
White, non-Hispanic		2,100	2,800	1,600	S	32,000
Black, non-Hispanic		S	S	S	S	S
Hispanic		S	S	S	S	S
Asian or Pacific Islander	2,300 S	1,100 S	1,000 S	S	S	44,000 S
American Indian/Alaskan Native				3	3	3
Psychology						:
White, non-Hispanic	21,900	4,700	6,500	9,400	S	30,000
Black, non-Hispanic		s	S	s	S	30,000
Hispanic		l s	S	900	S	32,000
Asian or Pacific Islander		l s	s	s	S	s
American Indian/Alaskan Native		s	s	s	S	S
Social and related sciences						
White, non-Hispanic	19,200	4,800	2,800	10,800	S	34,000
Black, non-Hispanic		l s	s	1,000	S	36,000
Hispanic		İš	l s	700	S	32,000
Asian or Pacific Islander		s	s	s	S	40,000
American Indian/Alaskan Native		s	l s	· s	s	s

See end of table for notes and source.



Table S-6. Number of 1995 and 1996 science and engineering master's degree recipients, by primary status, median salary, race/ethnicity, and major field of degree: April 1997

Page 2 of 2

		Prim	Primary education and employment status				
			N	ot full-time stude	ent		
Major field of 1995-96 S&E master's degree	Total recipients	Full-time student	Employed in science and engineering	Employed in other occupation	Not employed and not full- time student	Median salary for full-time employed ¹	
Total engineering							
White, non-Hispanic	29,100	3,700	22,000	2,900	s	\$50,000	
Black, non-Hispanic	1,600	S	1,000	S	s	48,000	
Hispanic	2,200	S	1,200	S	S	46,000	
Asian or Pacific Islander	14,000	2,200	10,800	S	S	47,500	
American Indian/Alaskan Native	S	S	S	S	S	S	

¹ Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table A-1. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by sex, race/ethnicity, and major field of degree: April 1997

Sex Race/ethnicity American Asian or Indian/ Total White, non-Black, non-Major field of 1995-96 S&E bachelor's degree Male Female Hispanic Pacific Hispanic Alaskan recipients Hispanic Islander Native 708,900 366,400 342,500 540,800 49,300 48,600 64,500 5,700 All science and engineering fields..... Major type 593,800 271,600 322,200 455,800 42,800 41,100 49,000 5.100 Total science..... 20.300 6,500 7,500 15,500 600 Total engineering..... 115,100 94,800 85.000 Major field S 41,000 29,300 11,800 28,600 4,400 2,200 5.700 Computer and information sciences..... 139.000 67,100 71.900 109,800 5,900 7.700 15.000 S Life and related sciences, total..... S 14,000 8,100 5,900 12,900 Agricultural and food sciences..... Biological sciences..... 115.300 53.800 61,500 87.900 5,600 7,000 14,400 S Environmental life sciences including 9,700 5,200 4,500 9,000 S S S S forestry sciences..... S 26,800 13,500 13,300 21,200 1,800 1,100 2,600 Mathematical and related sciences..... S Physical and related sciences, total..... 36,600 23,400 13,200 30,000 1,700 1,100 3,500 S 20,100 11,600 8,500 15,600 1,300 700 2,400 Chemistry, except biochemistry..... Earth sciences, geology, and 9.200 5.900 3.300 8.300 S S S S oceanography..... 6,900 5,600 1,300 5,700 300 200 S Physics and astronomy..... 600 Other physical sciences..... S S S S S S 99,000 13,500 S 39,000 105,500 11,300 5,800 Psychology..... 138,000 99,300 113,100 160,700 17,600 15,600 16,400 2,000 212,400 Social and related sciences, total..... 2,000 4,200 S Economics..... 33,300 21,700 11,600 24,600 2,100 Political science and related sciences...... 72,900 38,600 34,300 55,400 5,400 6,000 5,400 S 49,000 5,300 S 66,900 24,700 42,200 7,400 4,300 Sociology and anthropology.....

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

39,300

115,100

3,000

11,600

20,700

32,900

5,800

27,900

13,200

14,400

94,800

2,700

7.800

16,900

28,900

4,100

24,300

10,100

24,900

20,300

300

3.800

3,700

4.000

1,700

3,700

3,100

31,700

85,000

2,400

8.300

17,100

20,900

4,300

22,000

10,100

2,700

6,500

S

900

1,100

2.300

1,300

400

2,200

7.500

200

800

1,300

2.500

500

1,600

NOTES: Details may not add to totals because of rounding.

Other social sciences.....

Aerospace and related engineering......

Chemical engineering......

Civil and architectural engineering...... Electrical, electronic, computer and

communications engineering.....

Industrial engineering.....

Mechanical engineering.....

Other engineering.....

Engineering, total.....

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



S

6Ò0

S

S

S

S

S

S

S

S

15,500

300

S

1,600

7,100

3,000

1,900

Table A-2. Number of 1995 and 1996 science and engineering master's degree "recipients, by sex, race/ethnicity, and major field of degree: April 1997

		Se	Х			Race/ethnicity		
Major field of 1995-96 S&E master's degree	Total recipients	Male	Female	White, non- Hispanic	Black, non- Hispanic	Hispanic	Asian or Pacific Islander	American Indian/ Alaskan Native
All science and engineering fields	149,500	89,000	60,600	103,200	7,100	7,100	31,300	800
Major type								
Total science	102,500	50,100	52,500	74,200	5,500	4,900	17,300	s
Total engineering	47,000	38,900	8,100	29,100	1,600	2,200	14,000	s
Major field								
Computer and information sciences	18,200	13,800	4,400	8,900	700	s	8,200	s
Life and related sciences, total	15,300	8,000	7,400	12,100	s	s	2,200	s
Agricultural and food sciences	2,500	1,400	1,100	2,000	S	S	S	S
Biological sciences	10,500	5,100	5,300	8,000	s	S	1,700	s
Environmental life sciences including forestry sciences	2,400	1,500	s	2,100	's	S	S	S
Mathematical and related sciences	7,900	4,700	3,200	5,400	s	s	1,600	s
Physical and related sciences, total	9,700	7,000	2,700	6,700	s	s	2,300	s
Chemistry, except biochemistry	3,900	2,300	1,600	2,600	s	s	1,100	s
Earth sciences, geology, and								
oceanography	2,400	1,800	600	2,000	s	S	S	S
Physics and astronomy	3,000	2,600	S	1,800	s	S	1,000	S
Other physical sciences	S	S	S	S	s	S	s	S
Psychology	26,400	5,900	20,500	21,900	1,800	1,500	s	S
Social and related sciences, total	25,100	10,700	14,400	19,200	1,900	1,600	2,200	s
Economics	4,100	2,900	1,300	2,900	s	s	s	S
Political science and related sciences	8,100	3,900	4,100	6,200	s	s	s	S
Sociology and anthropology	4,200	1,300	2,900	3,300	S	S	s	S
Other social sciences	8,700	2,700	6,000	6,800	1,000	S	S	S
Engineering, total	47,000	38,900	8,100	29,100	1,600	2,200	14,000	s
Aerospace and related engineering	1,500	1,300	S	1,100	S	s	s	S
Chemical engineering	2,000	1,400	600	1,000	· s	s	800	S
Civil and architectural engineering	6,500	5,000	1,500	4,400	s	s	1,500	S
Electrical, electronic, computer and								
communications engineering	16,100	13,700	2,500	9,000.	600	500	5,900	S
Industrial engineering	3,200	2,600	S	2,100	s	s	s	S
Mechanical engineering	7,200	6,400	S	4,000	s	s	2,500	S
Other engineering	10,400	8,600	1,800	7,400	s	s	2,400	S

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table A-3. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by race/ethnicity, by sex, and major field of degree: April 1997

			• .		Race/	ethnicity				
Major field of 1995-96 S&E bachelor's degree		nite, ispanic		I MISDADIC I		anic Hispanic Islander Ala		American Indian/ Alaskan Native		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All science and engineering fields	286,600	254,200	19,800	29,500	22,400	26,300	35,300	29,200	2,300	3,400
Major type										
Total science	215,200	240,600	15.600	27,300	16,400	24,800	22,700	26,300	1,800	3,300
Total engineering		13,600	4,200	2,200	6,000	1,500	12,600	2,900	1,000 S	5,500
Major field										
Computer and information sciences	21,200	7,400	2,500	1,900	1,200	s	4,300	s	s	S
Life and related sciences, total	55,200	54,600	1,800	4,100	3,200	4,500	6,700	8,300	S	9
Agricultural and food sciences		5,100	s	s	S	S	S	S	S	9
Biological sciences	42,400	45,500	1,600	3,900	2,800	4,200	6,700	7,700	s	s
Environmental life sciences including	,	,	.,	,,,,,,	2,000	,,	0,700	,,,,,,		`
forestry sciences	5,100	3,900	· S	s	s	S	s	s	S	8
Mathematical and related sciences	10,400	10,800	1,000	800	S	s	s	S	S	s
Physical and related sciences, total	19,500	10,500	900	800	600	500	2,200	1,300	S	5
Chemistry, except biochemistry	9,300	6,300	600	700	s	S	1,400	s	S	5
Earth sciences, geology, and	,	-,					.,,			
oceanography	5,300	3,000	S	s	s	s	S	s	s	S
Physics and astronomy	4,700	1,000	S	s	s	S	S	s	s	S
Other physical sciences	S	S	S	s	s	S	S	s	s	S
Psychology	30,200	75,300	3,000	8,400	3,700	9,900	s	4,200	s	S
Social and related sciences, total	78,700	82,000	6,400	11,200	6,900	8,700	6,600	9,800	s	S
Economics	16,600	8,100	S	1,000	1,300	S	S	s	s	S
Political science and related sciences	31,100	24,300	2,500	3,000	2,600	3,300	S	3,300	S	S
Sociology and anthropology	18,300	30,600	2,300	5,100	2,000	3,400	s	s	s	S
Other social sciences	12,700	19,000	S	2,100	s	1,300	S	s	s	S
Engineering, total	71,400	13,600	4,200	2,200	6,000	1,500	12,600	2,900	s	s
Aerospace and related engineering	2,100	300	S	s	200	s	300	s	s	S
Chemical engineering	6,000	2,300	S	600	500	s	900	s	s	S
Civil and architectural engineering	14,100	3,000	800	S	1,000	s	s	s	s	S
Electrical, electronic, computer and										
communications engineering	19,100	1,800	1,600	s	2,100	s	5,900	s	s	s
Industrial engineering	3,200	1,100	s	200	300	200	S	s	s	S
Mechanical engineering	19,200	2,800	1,000	s	1,400	s	2,700	s	S	S
Other engineering	7,700	2,400	s	s	500	·s	1,500	s	s	S

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table A-4. Number of 1995 and 1996 science and engineering master's degree recipients, by race/ethnicity,

by sex, and major field of degree: April 1997

					Race/e	thnicity				
Major field of 1995-96 S&E master's degree	White, nor	nite, non-Hispanic B		, non-Hispanic Hisp		anic	Asian or Pacific Islander		America Alaskar	n Indian/ Native
<u> </u>	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All science and engineering fields	59,500	43,700	3,500	3,600	3,700	3,400	21,700	9,600	S	S
Major type	:	İ							!	
Total science	35,100	39,000	2,200	3,300	2,000	2,900	10,400	6,900	S	s
Total engineering	24,400	4,600	1,300	s	1,700	s	11,300	2,700	S	s
Major field										
Computer and information sciences	7,500	1,400	s	s	s	s	5,700	2,500	S	s
Life and related sciences, total	6,400	5,700	s	S	s	s	S	s	S	s
Agricultural and food sciences	1,200	s	s	S	s	s	S	s	S	s
Biological sciences	3,900	4,000	s	S	S	s	S	s	S	s
Environmental life sciences including										
forestry sciences	1,300	s	s	S	s	S	S	S	S	s
Mathematical and related sciences	3,500	1,900	s	s	s	S	s	s	S	s
Physical and related sciences, total	4,800	1,900	s	s	s	s	1,800	S	S	s
Chemistry, except biochemistry	1,500	1,100	S	S	S	S	S	S	S	S
Earth sciences, geology, and	i		ļ							
oceanography	. 1,500	S	S	S	S	S	S	S	S	S
Physics and astronomy	1,600	S	S	S	S	S	900	S	S	8
Other physical sciences	. s	S	s	S	S	S	S	S	S	S
Psychology	4,800	17,100	s	1,300	s	1,300	s	s	s	s
Social and related sciences, total	. 8,100	11,100	900	1,100	800	800	s	1,400	s	s
Economics	2,000	S	s	S	S	S	S	S	S	5
Pólitical science and related sciences	. 3,100	3,100	s	S	s	S	s	S	S	S
Sociology and anthropology	. s	2,300	s	S	S	S	S	S	S	8
Other social sciences	2,000	4,800	s	800	S	S	S	S	s	5
Engineering, total	. 24,400	4,600	1,300	s	1,700	s	11,300	2,700	s	s
Aerospace and related engineering	. 1,000	S	S	S	S	S	S	S	s	8
Chemical engineering		s	s	S	s	S	600	S	s	8
Civil and architectural engineering	. 3,400	1,000	s	S	s	S	1,200	S	S	8
Electrical, electronic, computer and			1		1					
communications engineering	8,000	1,000	600	S	s	S	4,700	1,200	S	5
Industrial engineering	., 1,500	s	s	s	s	S	s	S	s	8
Mechanical engineering	. 3,500	s	S	s	s	S	2,300	S	S	8
Other engineering	. 6,300	1,100	s	S	s	S	1,800	S	s	8

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of respondent data reliability.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table A-5. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by age and major field of degree: April 1997

			Aç	је	
Major field of 1995-96 S&E bachelor's degree	Total recipients	Less than 25	25–29	30–34	35 or more
All science and engineering fields	708,900	408,700	207,300	38,600	54,300
Major type					·
Total science	593,800	349,900	166,000	29,400	48,400
Total engineering	115,100	58,800	41,300	9,200	5,900
Major field					
Computer and information sciences	41,000	15,000	15,500	4,500	6,100
Life and related sciences, total	139,000	89,300	37,200	5,900	6,600
Agricultural and food sciences	14,000	7,800	5,100	S	S
Biological sciences	115,300	76,400	28,700	4,800	5,400
Environmental life sciences including forestry sciences	9,700	5,200	3,400	S	S
Mathematical and related sciences	26,800	15,200	8,300	s	1,700
Physical and related sciences, total	36,600	22,500	9,900	2,300	1,800
Chemistry, except biochemistry	20,100	13,200	4,700	S	S
Earth sciences, geology, and oceanography	9,200	5,100	2,700	600	700
Physics and astronomy	6,900	4,100	2,200	S	S
Other physical sciences	S	s	s	S	S
Psychology	138,000	83,300	35,300	5,700	13,600
Social and related sciences, total	212,400	124,500	59,900	9,400	18,600
Economics	33,300	21,600	8,900	S	S
Political science and related sciences	72,900	49,600	17,200	2,800	3,300
Sociology and anthropology	66,900	34,000	22,100	2,900	7,800
Other social sciences	39,300	19,300	11,600	2,400	6,000
Engineering, total	115,100	58,800	41,300	9,200	5,900
Aerospace and related engineering	3,000	1,800	1,000	S	S
Chemical engineering	11,600	7,200	3,500	S	S
Civil and architectural engineering	20,700	9,500	8,300	1,600	s
Electrical, electronic, computer and				.	
communications engineering	32,900	13,900	13,000	3,700	2,300
Industrial engineering	5,800	2,800	2,400	s	S
Mechanical engineering	27,900	15,400	9,500	2,300	S
Other engineering	13,200	8,200	3,500	S	S

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table A-6. Number of 1995 and 1996 science and engineering master's degree recipients, by age and major field of degree: April 1997

			Ag	е	
Major field of 1995-96 S&E master's degree	Total recipients	Less than 25	25–29	30–34	35 or more
All science and engineering fields	149,500	6,700	70,500	37,000	35,300
Major type					
Total science	102,500 [°]	4,200	47,300	23,700	27,400
Total engineering	47,000	2,500	23,300	13,400	7,900
Major field			:		
Computer and information sciences	18,200	s	7,400	5,000	5,100
Life and related sciences, total	15,300	s	7,200	3,700	3,600
Agricultural and food sciences	2,500	l s	1,200	S	s
Biological sciences	10,500	l s	5,300	2,500	1,800
Environmental life sciences including forestry sciences	2,400	s	s	S	1,100
Mathematical and related sciences	7,900	s	3,400	2,400	1,500
Physical and related sciences, total	9,700	s	5,200	2,700	1,300
Chemistry, except biochemistry		s	2,300	700	s
Earth sciences, geology, and oceanography		s	1,100	800	s
Physics and astronomy	3,000	s	1,600	1,100	s
Other physical sciences	s	s	S	S	s
Psychology	26,400	s	12,600	4,100	9,300
Social and related sciences, total	25,100	1,200	11,500	5,700	6,700
Economics	4,100	S	2,000	S	S
Political science and related sciences	8,100	S	4,600	1,600	1,600
Sociology and anthropology	4,200	S	2,300	S	1,200
Other social sciences	8,700	S	2,600	2,300	3,200
Engineering, total	47,000	2,500	23,300	13,400	7,900
Aerospace and related engineering		S	800	S	S
Chemical engineering	N .	S	1,000	400	S
Civil and architectural engineering	6,500	S	3,100	1,600	1,400
Electrical, electronic, computer and communications					
engineering		800	8,100	4,700	2,600
Industrial engineering		S	1,600	1,000	S
Mechanical engineering		S	4,100	2,100	S
Other engineering	10,400	S	4,500	3,300	2,200

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



61

Table A-7. Number of 1995 and 1996 science and engineering bachelor's degree recipients residing in the United States who are U.S. citizens and foreign-born, by major field of degree: April 1997

Major field of 1995-96 S&E bachelor's degree	Total recipients	U.S. citizens ¹	Foreign-bom ¹
All science and engineering fields	708,900	676,600	83,800
Major type			
Total science	593,800	570,000	64,100
Total engineering	115,100	106,600	19,600
Major field			
Computer and information sciences	41,000	35,400	10,100
Life and related sciences, total	139,000	133,900	14,800
Agricultural and food sciences	14,000	13,700	S
Biological sciences	115,300	110,400	13,900
Environmental life sciences including forestry sciences	9,700	9,700	S
Mathematical and related sciences	26,800	24,700	4,200
Physical and related sciences, total	36,600	34,700	4,100
Chemistry, except biochemistry	20,100	19,000	2,900
Earth sciences, geology, and oceanography	9,200	9,000	S
Physics and astronomy	6,900	6,400	800
Other physical sciences	s	S	S
Psychology	138,000	135,400	9,800
Social and related sciences, total	212,400	206,000	21,300
Economics	33,300	31,100	5,600
Political science and related sciences	72,900	70,400	7,900
Sociology and anthropology	66,900	65,700	4,700
Other social sciences	39,300	38,800	3,000
Engineering, total	115,100	106,600	19,600
Aerospace and related engineering	3,000	2,800	400
Chemical engineering	11,600	11,200	1,500
Civil and architectural engineering	20,700	19,700	2,700
Electrical, electronic, computer			
and communications engineering	32,900	28,400	8,700
Industrial engineering	5,800	5,400	800
Mechanical engineering	27,900	26,600	3,900
Other engineering	13,200	12,600	1,600

¹Some U.S. citizens are foreign-bom, including those who are naturalized citizens and others who were U.S. citizens at birth, but were born outside the U.S. Therefore, the separate columns do not add to the "Total recipients" total.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table A-8. Number of 1995 and 1996 science and engineering master's degree recipients residing in the United States who are U.S. citizens and foreign-born, by major field of degree: April 1997

Major field of 1995-96 S&E bachelor's degree	Total recipients	U.S. citizens ¹	Foreign-born ¹
All science and engineering fields	149,500	116,600	43,000
	·	·	•
Major type			
Total science	102,500	83,800	24,600
Total engineering	47,000	32,900	18,400
Major field			
Computer and information sciences	18,200	10,000	9,400
Life and related sciences, total	15,300	13,900	2,600
Agricultural and food sciences	2,500	2,100	S
Biological sciences	10,500	9,500	1,900
Environmental life sciences including forestry sciences	2,400	2,300	S
Mathematical and related sciences	7,900	5,700	2,500
Physical and related sciences, total	9,700	7,100	3,200
Chemistry, except biochemistry	3,900	2,900	1,300
Earth sciences, geology, and oceanography		2,100	S
Physics and astronomy	3,000	1,800	1,400
Other physical sciences	S	S	S
Psychology	26,400	25,100	2,200
Social and related sciences, total	25,100	22,000	4,600
Economics	4,100	2,900	1,500
Political science and related sciences	8,100	6,800	1,700
Sociology and anthropology		3,800	S
Other social sciences	8,700	8,600	S
Engineering, total		32,900	18,400
Aerospace and related engineering	1,500	1,200	400
Chemical engineering	2,000	1,200	900
Civil and architectural engineering	6,500	5,100	2,000
Electrical, electronic, computer and			
communications engineering	· ·	10,400	7,800
Industrial engineering	3,200	2,400	1,100
Mechanical engineering		4,700	3,000
Other engineering	10,400	8,000	3,300

¹Some U.S. citizens are foreign-born, including those who are naturalized citizens and others who were U.S. citizens at birth, but were born outside the U.S. Therefore, the separate columns do not add to the "Total recipients" total.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table A-9. Number of 1995 and 1996 science and engineering bachelor's degree recipients residing in the United States who are native-born or naturalized U.S. citizens, and number who are permanent

or temporary residents, by major field of degree: April 1997

		U.S. citizen		Non-U.S. citizen	
Major field of 1995-96 S&E bachelor's degree	Total recipients	From birth	Naturalized	Permanent resident	Temporary resident/other
All science and engineering fields	708,900	635,000	41,700	19,000	13,300
Major type					
Total science Total engineering	· '	538,100 96,900	31,900 9,700	15,100 3,900	8,700 4,600
Major field	113,100	30,300	3,700		4,000
Major new					
Computer and information sciences	41,000	31,700	3,600	2,500	3,100
Life and related sciences, total	139,000	125,800	8,000	3,900	S
Agricultural and food sciences	14,000	13,700	S	S	S
Biological sciences	115,300	102,600	7,900	3,700	S
Environmental life sciences including			_		_
forestry sciences	9,700	9,600	S	S	S
Mathematical and related sciences	26,800	22,900	1,800	S	S
Physical and related sciences, total		32,800	2,000	1,100	S
Chemistry, except biochemistry		17,400	1,500	S	S
Earth sciences, geology, and oceanography		8,800	S	S	S
Physics and astronomy		6,200 S	S	S S	S S
Other physical sciences	S	3	S	3	3
Psychology	138,000	130,300	5,000	2,300	S
Social and related sciences, total	212,400	194,500	11,500	4,200	S
Economics	33,300	28,400	2,700	S	S
Political science and related sciences	72,900	66,300	4,100	1,900	S
Sociology and anthropology	66,900	63,300	S	S	S
Other social sciences	39,300	36,500	S	S	S
Engineering, total		96,900	9,700	3,900	4,600
Aerospace and related engineering		2,700	S	S	S
Chemical engineering		10,200	900	S	S
Civil and architectural engineering	20,700	18,200	1,600	S	S
Electrical, electronic, computer and				2 222	
communications engineering		24,400	4,000	2,200	2,300
Industrial engineering		5,100	S 0 100	S	S
Mechanical engineering		24,400	2,100	S S	S
Other engineering	13,200	11,900	S	S	S

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table A-10. Number of 1995 and 1996 science and engineering master's degree recipients residing in the United States who are native-born or naturalized U.S. citizens, and number who are permanent or temporary residents, by major field of degree: April 1997

		U.S. c	itizen	Non-U.S. citizen		
Major field of 1995-96 master's degree	Total recipients	From birth	Naturalized	Permanent resident	Temporary resident	
All science and engineering fields	149,500	108,200	8,400	9,300	23,500	
Major type						
Total science	,	79,200	4,600	6,000	12,800	
Total engineering	47,000	29,100	3,800	3,400	10,700	
Major field	·					
Computer and information sciences	18,200	8,800	1,100	2,600	5,600	
Life and related sciences, total		12,900	s	S	s	
Agricultural and food sciences		2,000	S	S	S	
Biological sciences		8,700	S	S	S	
Environmental life sciences including forestry sciences	2,400	2,200	S	S	S	
Mathematical and related sciences	7,900	5,500	S	s	1,600	
Physical and related sciences, total	9,700	6,600	s	s	2,100	
Chemistry, except biochemistry		2,600	S	S	S	
Earth sciences, geology, and oceanography		2,000	S	S	S	
Physics and astronomy	3,000	1,700	S	S	1,100	
Other physical sciences	S	S	S	S	S	
Psychology	26,400	24,400	s	s	s	
Social and related sciences, total	25,100	20,800	1,200	s	2,300	
Economics	4,100	2,700	S	S	S	
Political science and related sciences		6,500	S	S	S	
Sociology and anthropology		3,600	S	S	S	
Other social sciences	8,700	8,100	S	S	S	
Engineering, total	47,000	29,100	3,800	3,400	10,700	
Aerospace and related engineering	1,500	1,100	S	S	S	
Chemical engineering		1,100	S	S	700	
Civil and architectural engineering	6,500	4,700	S	S	S	
Electrical, electronic, computer and						
communications engineering		8,400	2,000	1,400	4,400	
Industrial engineering		2,200	S	S	S	
Mechanical engineering		4,200	S	S	1,900	
Other engineering		7,300	S	S	1,900	

KEY:

S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTES:

Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.

SOURCE:



Table B-1. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by undergraduate grade point average (GPA) and major field of degree: April 1997

		Undergraduate GPA					
Major field of 1995-96 S&E bachelor's degree	Total recipients	3.25 or higher	2.75 to 3.24	Below 2.75			
All science and engineering fields	708,900	342,000	284,100	82,600			
Major type							
Total science	593,800 115,100	293,600 48,400	235,200 48,800	64,700 18,000			
Major field							
Computer and information sciences	41,000	20,200	16,500	4,300			
Life and related sciences, total		69,500	55,100	14,200			
Agricultural and food sciences		5,400	6,100	2,400			
Biological sciences	115,300	59,900	44,600	10,700			
Environmental life sciences including	0.700	. 4 200	4,400	S			
forestry sciences	9,700	4,200	4,400	3			
Mathematical and related sciences	26,800	14,200	10,600	2,000			
Physical and related sciences, total	36,600	19,900	12,200	4,400			
Chemistry, except biochemistry		12,500	5,300	2,300			
Earth sciences, geology, and							
oceanography		3,300	4,500	1,300			
Physics and astronomy	6,900	3,900	2,300	700			
Other physical sciences	S	S	S	S			
Psychology	138,000	74,400	48,900	14,700			
Social and related sciences, total	212,400	95,400	91,900	25,000			
Economics		15,300	11,900	6,100			
Political science and related sciences		36,000	29,900	6,900			
Sociology and anthropology		23,700	34,700	8,400			
Other social sciences		20,400	15,400	3,500			
-	115 100	40 400	40 000	18,000			
Engineering, total		48,400	48,800 1,300	500			
Aerospace and related engineering		1,300	4,900	1,200			
Chemical engineering		5,600 7,800	8,700	4,200			
Civil and architectural engineering Electrical, electronic, computer and	20,700	/,000	0,700	7,200			
communications engineering	32,900	14,200	13,300	5,500			
Industrial engineering		2,200	2,800	900			
Mechanical engineering		11,900	12,300	3,800			
Other engineering	· ·	5,600	5,600	2,000			
Onici chymechny	1 10,200						

NOTES: Details may not add to totals because of rounding and because a small number of graduates who reported that their undergraduate courses were ungraded are excluded.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-2. Number of 1995 and 1996 science and engineering master's degree recipients, by undergraduate grade point average (GPA) and major field of degree: April 1997

Major field of 1995-96 S&E master's degree	Total recipients	3.25 or higher	2.75 to 3.24	Below 2.75	
All science and engineering fields	149,500	97,300	42,700	8,800	
Major type					
Total science Total engineering	102,500 47,000	67,300 30,000	28,600 14,100	6,200 2,700	
Major field					
Computer and information sciences	18,200	12,500	4,300	1,200	
Life and related sciences, total		8,600 1,500 5,700	5,500 S 3,900	1,300 S S S S	
Mathematical and related sciences	7,900	5,300	2,100	S	
Physical and related sciences, total	9,700 3,900 2,400	6,400 2,700 1,500	2,700 1,000 700	\$ \$ \$ \$	
Physics and astronomy Other physical sciences	3,000 S	2,100 S	800 S	S S	
Psychology	26,400	18,300	6,900	1,000	
Social and related sciences, total	25,100 4,100 8,100 4,200 8,700	16,400 2,900 5,600 3,200 4,600	7,100 1,000 2,100 800 3,300	1,500 S S S S	
Engineering, total	47,000 1,500 2,000 6,500	30,000 1,000 1,400 3,600	14,100 400 400 2,400	2,700 S S S	
communications engineering	16,100 3,200 7,200 10,400	11,500 1,900 4,700 5,800	4,000 1,200 2,200 3,500	S S S 1,000	

NOTES: Details may not add to totals because of rounding and because a small number of graduates who reported that their undergraduate courses were ungraded are excluded.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-3. Number of 1995 and 1996 science and engineering bachelor's degree recipients who attended community college and earned associate's degrees, by major field of bachelor's degree: April 1997

		Communi	ity college	Associate's degree		
Major field of 1995-96 S&E bachelor's degree	Total recipients	Number attended community college	Percent attended community college	Number with associate's degree	Percent with associate's degree	
All science and engineering fields	708,900	300,000	42	93,800	13	
Major type						
Total science	593,800	252,700	43	81,200	14	
Total engineering	115,100	47,300	41	12,600	11	
Major field					ı	
Computer and information sciences	41,000	17,600	43	8,600	21	
Life and related sciences, total	139,000	56,300	41	13,800	10	
Agricultural and food sciences		6,200	44	2,900	21	
Biological sciences		45,000	39	9,500	8	
Environmental life sciences including	·					
forestry sciences	9,700	5,200	54	S	S	
Mathematical and related sciences	26,800	9,000	34	2,200	8	
Physical and related sciences, total	36,600	13,700	37	3,400	9	
Chemistry, except biochemistry		7,400	37	1,800	9	
Earth sciences, geology, and				4 400	40	
oceanography		3,800	41	1,100	12	
Physics and astronomy		2,300	33	500	7	
Other physical sciences	S I	S	S	S	S	
Psychology	138,000	63,700	46	22,500	16	
Social and related sciences, total	212,400	92,400	44	30,600	14	
Economics	33,300	12,500	38	2,900	9	
Political science and related sciences	72,900	25,900	36	6,600	9	
Sociology and anthropology	66,900	34,600	52	13,800	21	
Other social sciences	39,300	19,300	49	7,300	19	
Engineering, total	115,100	47,300	41	12,600	11	
Aerospace and related engineering		900		200	7	
Chemical engineering	11,600	4,000		S	S	
Civil and architectural engineering	20,700	9,200	44	2,600	13	
Electrical, electronic, computer and						
communications engineering		14,500	44	4,000	12	
Industrial engineering				700	12	
Mechanical engineering		11,500		3,200	11	
Other engineering	13,200	5,000	38	1,300	10	

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-4. Number of 1995 and 1996 science and engineering master's degree recipients who attended community college and earned associate's degree, by major field of master's degree: April 1997

		Commun	Associate's degree		
Major field of 1995-96 S&E master's degree	Total recipients	Number attended community college	Percent attended community college	Number with associate's degree	Percent with associate's degree
All science and engineering fields	149,500	50,100	34	14,500	10
Major type					
Total science	102,500	35,600	35	11,000	10 〜
Total engineering	47,000	14,500	31	3,400	7
Major field					
Computer and information sciences	18,200	5,200	29	2,200	12
Life and related sciences, total	15,300	5,900	39	1,500	10
Agricultural and food sciences		s	S	S	S
Biological sciences	10,500	3,900	37	S	S
Environmental life sciences including	,	-,			-
forestry sciences	2,400	1,200	50	S	S
Mathematical and related sciences	7,900	2,400	30	s	S
Physical and related sciences, total	9,700	2,200	23	S	S
Chemistry, except biochemistry Earth sciences, geology, and	3,900	900	23	S	S
oceanography		600	25	S	S
Physics and astronomy	3,000	s	S	s	S
Other physical sciences		S	S	S	S
Psychology	26,400	11,600	44	3,900	15
Social and related sciences, total	25,100	8,400	33	2,300	9
Economics	4,100	1,400	34	S	S
Political science and related sciences	8,100	2,400	30	s	S
Sociology and anthropology	4,200	1,600	38	s	S
Other social sciences		3,000	34	S	S
Engineering, total	47,000	14,500	31	3,400	7
Aerospace and related engineering	1,500	400	27	s	S
Chemical engineering	2,000	S	s	s	S
Civil and architectural engineering	6,500	2,500	38	s	S
Electrical, electronic, computer and					
communications engineering	16,100	4,700	29	1,200	7
Industrial engineering	3,200	1,000	31	S	S
Mechanical engineering	7,200	2,000	28	S	S
Other engineering	10,400	3,500	34	s	S

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-5. Number of 1995 and 1996 science and engineering bachelor's degree recipients who received financial support from various sources for those degrees, by major field of degree: April 1997

Support Hom Various Sources for t		Sources of support							
Major field of 1995-96 S&E bachelor's degree	Total recipients	Earnings from employ- ment	Gifts from parents/ relatives	Scholar- ships, grants, fellowships	Loans from college, bank, govern- ment	Assistant- ships, work study	Employer assistance	Loans from parents or relatives	Other sources
All science and engineering fields	708,900	453,300	513,000	403,700	365,600	182,600	48,100	60,700	10,800
Major type									
Total science	593,800	372,300	431,600	331,000	305,100	153,800	36,800	48,200	8,900
Total engineering	115,100	81,100	81,400	72,700	60,500	28,800	11,300	12,500	2,000
Major field									
Computer and information sciences	41,000	25,800	23,900	23,400	19,500	12,300	7,200	5,500	s
Life and related sciences, total	139,000	91,200	103,900	83,700	69,800	38,400	7,400	11,600	s
Agricultural and food sciences		10,900	9,300	8,700	6,800	3,600	S	S	S
Biological sciences Environmental life sciences including	115,300	73,500	86,800	70,100	57,800	31,800	5,700	9,700	S
forestry sciences	9,700	6,800	7,800	4,900	5,200	3,000	s	S	S
Mathematical and related sciences	26,800	17,700	19,300	20,000	13,400	8,500	1,500	2,500	s
Physical and related sciences, total	36,600	22,700	26,200	23,500	18,000	11,800	3,000	2,600	s
Chemistry, except biochemistry Earth sciences, geology, and	20,100	11,600	13,900	13,800	9,900	6,800	1,400	S	S
oceanography	9,200	6,000	6,800	5,000	4,700	2,300	1,000	800	S
Physics and astronomy		4,800	5,200	4,600	3,300	2,500	600	500	S
Other physical sciences		s	s	s	S	s	S	S	S
Psychology	138,000	84,200	98,500	70,600	74,300	30,400	7,100	8,800	s
Social and related sciences, total	212,400	130,500	159,900	109,900	110,100	52,500	10,500	17,100	3,100
Economics	33,300	21,800	26,100	17,100	15,800	7,500	S	2,800	S
Political science and related sciences	72,900	44,400	59,200	37,800	39,200	19,300	2,500	5,700	S
Sociology and anthropology	66,900	38,400	45,800	35,600	36,000	17,200	3,100	4,400	S
Other social sciences	39,300	25,800	28,700	19,400	19,100	8,500	3,500	4,100	S
Engineering, total	115,100	81,100	81,400	72,700	60,500	28,800	11,300	12,500	2,000
Aerospace and related engineering		1,800	2,100	1,800	1,400	500	400	200	S
Chemical engineering	11,600	8,600	8,600	8,500	6,000	3,400	700	1,100	S
Civil and architectural engineering	20,700	15,000	15,300	12,700	10,500	4,300	1,600	2,600	S
Electrical, electronic, computer and									
communications engineering	32,900	22,400	21,700	21,200	18,000	9,400	4,200	4,300	S
Industrial engineering	5,800	3,900	4,400	3,400	3,100	1,300	600	500	S
Mechanical engineering	. 27,900	20,600	19,700	17,400	14,600	6,400	2,200	2,600	S
Other engineering	13,200	8,700	9,500	7,800	6,900	3,600	1,500	1,200	S

NOTES: Details may not add to totals because of rounding.

Respondents may have multiple sources of support. Therefore, column entries will not add to "Total recipients."

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-6. Number of 1995 and 1996 science and engineering master's degree recipients who received financial support from various sources for those degrees, by major field of degree: April 1997

Hom various sources for those deg	1000, 27	Sources of support							
Major field of 1995-96 S&E master's degree	Total recipients	Earnings from employ- ment	Gifts from parents/ relatives	Scholar- ships, grants, fellowships	Loans from college, bank, govern- ment	Assistant- ships, work study	Employer assistance	Loans from parents or relatives	Other sources
All science and engineering fields	149,500	79,300	52,600	76,800	46,100	71,400	40,800	9,500	4,500
Major type									
Total science	102,500 47,000	57,000 22,300	36,900 15,700	52,200 24,700	37,200 8,900	48,200 23,100	23,000 17,800	6,700 2,800	3,700 S
Major field									٠
Computer and information sciences	18,200	8,700	6,800	8,300	2,500	8,100	6,600	1,800	S
Life and related sciences, total	15,300 2,500 10,500	7,900 S 5,400	5,500 1,000 4,100	7,400 1,500 5,000	6,100 S 4,500	7,800 1,900 5,200	2,800 S 1,600	1,200 S S	S S S
forestry sciences	2,400	1,600	s	s	s	s	s	s	s
Mathematical and related sciences	7,900	3,300	1,800	4,300	1,700	4,800	2,200	S	s
Physical and related sciences, total Chemistry, except biochemistry Earth sciences, geology, and		3,800 1,600	2,600 1,100	7,100 3,000	2,200 1,000	7,000 2,700	3,000 1,500	s s	S S
oceanography Physics and astronomy Other physical sciences	3,000	1,100 800 S	700 700 S	1,500 2,400 S	600 S S	1,800 2,300 S	600 900 S	s s s	\$ \$ \$
Psychology	26,400	16,900	10,900	10,600	14,100	9,000	3,800	s	s
Social and related sciences, total Economics Political science and related sciences Sociology and anthropology Other social sciences	4,100 8,100	16,500 2,000 5,400 2,600 6,400	9,300 1,700 2,800 1,600 3,100	14,600 2,600 4,600 3,000 4,400	10,500 1,400 3,600 2,200 3,400	11,500 1,900 3,100 2,900 3,600	4,600 S 1,700 S 1,700	1,500 S S S S	1,300 S S S S
Engineering, total	47,000 1,500 2,000 6,500	22,300 700 900 3,600	15,700 500 600 2,300	24,700 900 1,400 3,700	8,900 S S 1,800	23,100 700 1,100 3,300	17,800 500 600 2,200	2,800 S S S	\$ \$ \$ \$
Electrical, electronic, computer and communications engineering Industrial engineering Mechanical engineering Other engineering	16,100 3,200 7,200 10,400	8,000 1,500 3,200 4,400	5,600 1,100 2,700 3,000	7,500 1,700 4,200 5,300	2,300 900 1,300 1,900	7,500 1,500 4,600 4,400	6,700 1,100 1,600 5,000	S S S S	\$ \$ \$ \$

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTES: Details may not add to totals because of rounding.

Respondents may have multiple sources of support. Therefore, column entries will not add to "Total recipients."

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-7. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by amount borrowed for undergraduate education and major field of degree: April 1997

		Undergraduate loan amount						
Major field of 1995-96 S&E bachelor's degree	Total recipients	Less than \$10,000	\$10,000-24,999	\$25,000 or more				
All science and engineering fields	708,900	429,400	196,300	83,200				
Major type								
Total science	593,800	363,700	163,000	67,100				
Total engineering	115,100	65,700	33,300	16,200				
Major field								
Computer and information sciences	41,000	27,200	10,000	3,900				
Life and related sciences, total	139,000	84,400	39,400	15,100				
Agricultural and food sciences	14,000	8,700	4,000	S				
Biological sciences	115,300	70,000	32,200	13,100				
Environmental life sciences including								
forestry sciences	9,700	5,700	3,200	S				
Mathematical and related sciences	26,800	16,300	7,400	3,100				
Physical and related sciences, total	36,600	23,500	9,400	3,700				
Chemistry, except biochemistry	20,100	13,100	5,100	1,900				
Earth sciences, geology, and								
oceanography	9,200	5,700	2,400	1,100				
Physics and astronomy		4,400	1,800	700				
Other physical sciences		s	S	S				
Psychology	138,000	81,600	39,400	16,900				
Social and related sciences, total	212,400	130,700	57,400	24,300				
Economics	33,300	21,600	9,400	2,300				
Political science and related sciences	72,900	43,200	20,900	8,800				
Sociology and anthropology	66,900	40,400	17,900	8,600				
Other social sciences		25,400	9,200	4,700				
Engineering, total	115,100	65,700	33,300	16,200				
Aerospace and related engineering	3,000	1,800	800	400				
Chemical engineering	11,600	6,900	3,200	1,500				
Civil and architectural engineering	20,700	12,000	6,100	2,600				
Electrical, electronic, computer and								
communications engineering	32,900	17,600	10,300	5,100				
Industrial engineering	5,800	3,400	1,800	600				
Mechanical engineering	27,900	16,300	7,700	4,000				
Other engineering	13,200	7,800	3,600	1,800				

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-8. Number of 1995 and 1996 science and engineering master's degree recipients, by amount borrowed for undergraduate and graduate education and major field of degree: April 1997

Major field of 1995-96 S&E master's degree	Total recipients			
		Less than \$10,000	\$10,000-24,999	\$25,000 or more
All science and engineering fields	149,500	93,500	33,000	23,000
Major type				
otal science	1	61,000	22,600	18,900
otal engineering	47,000	32,400	10,400	4,100
Major field				
Computer and information sciences	. 18,200	13,900	2,900	1,400
Life and related sciences, total	15,300	8,600	3,600	3,100
Agricultural and food sciences		1,700	S	S
Biological sciences	10,500	5,500	2,500	2,500
Environmental life sciences including				
forestry sciences	2,400	1,400	S	S
Mathematical and related sciences	7,900	5,700	1,300	800
Physical and related sciences, total	9,700	6,300	2,200	1,100
Chemistry, except biochemistry		2,400	1,000	S
Earth sciences, geology, and			,	
oceanography	2,400	1,600	600	S
Physics and astronomy		2,100	s	·S
Other physical sciences		S	s	S
Psychology	26,400	12,700	6,200	7,500
Social and related sciences, total	25,100	13,800	6,300	5,000
Economics		2,400	S	S
Political science and related sciences		4,300	1,500	2,300
Sociology and anthropology	· ·	2,100	1,100	900
Other social sciences		5,000	2,500	1,200
Engineering, total	47,000	32,400	10,400	4,100
Aerospace and related engineering		900	400	S
Chemical engineering	i i	1,500	s	S
Civil and architectural engineering		4,100	2,000	S
Electrical, electronic, computer and			_,,	· ·
communications engineering	16,100	11,600	3,200	1,300
Industrial engineering		2,000	900	S
Mechanical engineering		5,300	1,300	S
Other engineering	· ·	7,000	2,400	1,100

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-9. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by amount owed for undergraduate loan and major field of degree: April 1997

		Amount owed					
Major field of 1995-96 bachelor's degree	Total recipients	Less than \$10,000	\$10,000-24,999	\$25,000 or more			
All science and engineering fields	708,900	512,700	156,700	39,500			
Major type							
Total science		430,400	131,400	32,000			
Total engineering	115,100	82,300	25,400	7,500			
Major field							
Computer and information sciences	41,000	32,500	6,700	S			
Life and related sciences, total	139,000	98,600	32,300	8,100			
Agricultural and food sciences	14,000	10,900	2,500	S			
Biological sciences	115,300	80,500	27,600	7,100			
Environmental life sciences including							
forestry sciences	9,700	7,100	2,200	S			
Mathematical and related sciences	26,800	20,000	5,900	S			
Physical and related sciences, total	36,600	26,600	8,000	2,000			
Chemistry, except biochemistry Earth sciences, geology, and		14,700	4,200	S			
oceanography	9,200	6,700	2,100	S			
Physics and astronomy	6,900	4,900	1,700	S			
Other physical sciences	S	S	S	S			
Psychology	138,000	99,100	31,800	7,100			
Social and related sciences, total	212,400	153,600	46,700	12,100			
Economics	33,300	25,100	7,300	S			
Political science and related sciences	72,900	51,900	17,000	4,000			
Sociology and anthropology	66,900	47,300	14,700	4,900			
Other social sciences		29,400	7,700	S			
Engineering, total	115,100	82,300	25,400	7,500			
Aerospace and related engineering		2,100	700	200			
Chemical engineering	11,600	8,100	2,800	700			
Civil and architectural engineering	20,700	15,200	4,300	S			
Electrical, electronic, computer and		,	,,=50				
communications engineering	32,900	23,300	7,600	2,000			
Industrial engineering	5,800	4,200	1,400	S			
Mechanical engineering	27,900	20,200	5,700	2,000			
Other engineering	13,200	9,100	2,800	1,200			

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-10. Number of 1995 and 1996 science and engineering master's degree recipients, by amount owed for undergraduate and graduate loans and major field of degree: April 1997

		Amount owed				
Major field of 1995-96 S&E master's degree	Total recipients	Less than \$10,000	\$10,000-24,999	\$25,000 or more		
All science and engineering fields	149,500	113,700	21,700	· 14,100		
Major type						
Total science	102,500	73,800	16,600	12,100		
Total engineering	47,000	39,900	5,100	2,000		
Major field	:					
Computer and information sciences	18,200	16,400	1,300	s		
Life and related sciences, total	15,300	10,500	2,600	2,300		
Agricultural and food sciences	2,500	2,000	S ·	· S		
Biological sciences	10,500	6,900	1,700	1,900		
Environmental life sciences including						
forestry sciences	2,400	1,700	S	S		
Mathematical and related sciences	7,900	6,600	S	s		
Physical and related sciences, total	9,700	7,600	1,400	. 700		
Chemistry, except biochemistry	3,900	3,000	S	S		
Earth sciences, geology, and						
oceanography	2,400	1,900	S	s		
Physics and astronomy	3,000	2,400	S	s		
Other physical sciences	S	S	S	s		
Psychology	26,400	15,900	5,500	4,900		
Social and related sciences, total	25,100	16,900	4,900	3,300		
Economics	4,100	2,900	S	s		
Political science and related sciences	8,100	4,900	1,500	1,700		
Sociology and anthropology	4,200	2,500	1,200	S		
Other social sciences	8,700	6,700	1,400	s		
Engineering, total	47,000	39,900	5,100	2,000		
Aerospace and related engineering	1,500	1,200	S	S		
Chemical engineering	2,000	1,800	S	s		
Civil and architectural engineering	6,500	5,400	S	s		
Electrical, electronic, computer and						
communications engineering	16,100	14,000	1,500	s		
Industrial engineering	3,200	2,700	S	s		
Mechanical engineering	7,200	6,000	S	s		
Other engineering	10,400	8,900	1,100	s		

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-11. Number of 1995 and 1996 science and engineering bachelor's degree recipients who have taken additional courses since most recent degree and enrollment status on April 15, 1997, by major field of degree: April 1997

April (33)	_	Have taken	Арі	ril 15, 1997 sta	tus
Major field of 1995-96 S&E bachelor's degree	Total recipients	additional courses since most recent degree ¹	Full-time student	Part-time student	Not student
All science and engineering fields	708,900	340,600	150,300	53,400	505,200
Major type	,				
Total science Total engineering	593,800 115,100	298,400 42,200	135,200 15,200	42,700 10,600	415,900 89,300
Major field					
Computer and information sciences	41,000	11,600	s	3,000	35,700
Life and related sciences, total	14,000	82,800 4,800 74,500 3,500	43,000 1,800 40,100 S	8,500 S 7,500 S	87,500 11,600 67,700 8,200
Mathematical and related sciences	26,800	12,700	5,100	2,400	19,300
Physical and related sciences, total Chemistry, except biochemistry Earth sciences, geology, and oceanography Physics and astronomy Other physical sciences	20,100 9,200 6,900	23,300 13,700 4,600 4,600 S	14,000 8,600 2,200 3,100 S	1,900 S 600 S S	20,700 10,600 6,400 3,600 S
Psychology	138,000	75,100	32,800	12,900	92,300
Social and related sciences, total	212,400 33,300 72,900 66,900 39,300	92,900 11,000 33,400 29,000 19,500	38,000 3,500 16,300 11,100 7,000	14,100 S 4,000 4,800 3,800	160,400 28,400 52,500 51,000 28,500
Engineering, total	3,000 11,600	42,200 1,300 4,600 7,100	15,200 700 2,000 2,800	10,600 300 1,000 S	89,300 2,100 8,700 16,500
communications engineering	5,800	12,500 1,700 9,500 5,500	3,400 500 3,000 2,800	3,900 400 2,700 1,100	25,600 4,900 22,300 9,300

¹Most recent degree as of the survey reference period, April 1997.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-12. Number of 1995 and 1996 science and engineering master's degree recipients who have taken additional courses since most recent degree and enrollment status on April 15, 1997, by major field of degree: April 1997

April 1997		Have taken	Aj	ıs	
Major field of 1995-96 S&E master's degree	Total recipients	additional courses since most recent degree ¹	Full-time student	Part-time student	Not student
All science and engineering fields	149,500	61,900	30,900	8,200	110,500
Major type					
Total science Total engineering	102,500 47,000	44,900 17,100	24,000 6,800	5,200 3,000	73,300 37,100
Major field					
Computer and information sciences	18,200	4,300	s	S	16,700
Life and related sciences, total	15,300 2,500 10,500	7,800 1,000 6,100	4,900 S 4,000	S S S	10,000 2,000 6,000
forestry sciences	2,400	s	s	S	2,000
Mathematical and related sciences	7,900	3,900	2,200	s	5,300
Physical and related sciences, total	3,900 2,400 3,000	5,700 2,500 900 2,200 S	3,500 1,700 S 1,300 S	8888	5,400 1,900 1,800 1,400 S
Psychology	26,400	12,700	5,900	1,900	18,500
Social and related sciences, total Economics Political science and related sciences Sociology and anthropology Other social sciences	25,100 4,100 8,100 4,200 8,700	10,600 2,200 3,300 2,100 3,000	6,500 1,600 2,300 1,500 S	1,100 S S S S	17,400 2,400 5,600 2,300 7,100
Engineering, total	1,500 2,000	17,100 700 1,000 1,900	6,800 400 700 S	3,000 S S S	37,100 1,000 1,200 5,600
communications engineering	16,100 3,200 7,200 10,400	6,700 1,000 2,500 3,200	2,400 S 1,200 1,000	1,300 S S · S	12,500 2,700 5,700 8,500

¹Most recent degree as of the survey reference period, April 1997.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-13 Number of 1995 and 1996 science and engineering bachelor's degree recipients who have not taken courses since most recent degree, and likelihood they will take additional courses, by major field of degree: April 1997

		Likelihood will take classes					
Major field of 1995-96 S&E bachelor's degree	Total number not taking courses since most recent degree ¹	Very likely	Somewhat likely	Very unlikely			
All science and engineering fields	368,300	244,100	95,300	29,000			
Major type							
Total science	295,400	198,800	74,300	22,400			
Total engineering	72,900	45,300	21,000	6,600			
Major field							
Computer and information sciences	29,400	16,600	10,000	2,800			
Life and related sciences, total	56,200	39,800	11,500	4,800			
Agricultural and food sciences		4,500	3,000	S			
Biological sciences	40,800	30,400	7,400	3,100			
Environmental life sciences including							
forestry sciences	6,200	5,000	s	S			
Mathematical and related sciences	14,200	9,900	3,100	S			
Physical and related sciences, total	13,300	9,000	3,600	700			
Chemistry, except biochemistry	6,400	4,100	2,000	S			
Earth sciences, geology, and oceanography	4,600	3,100	1,100	S			
Physics and astronomy	2,300	1,700	500	S			
Other physical sciences	s	S	s	S			
Psychology	62,900	45,600	13,200	4,000			
Social and related sciences, total	119,500	77,900	32,800	8,800			
Economics	22,300	13,700	6,400	2,200			
Political science and related sciences	39,500	27,700	8,800	3,000			
Sociology and anthropology	37,900	22,400	12,800	S			
Other social sciences	19,800	14,100	4,800	S			
Engineering, total	72,900	45,300	21,000	6,600			
Aerospace and related engineering	1,700	1,200	400	S			
Chemical engineering		4,400	1,700	900			
Civil and architectural engineering	13,600	7,400	4,600	1,500			
Electrical, electronic, computer and							
communications engineering		12,600	6,300	1,600			
Industrial engineering		2,800	1,000	S			
Mechanical engineering	18,500	12,000	5,100	S			
Other engineering	7,700	4,900	1,900	S			

Most recent degree as of the survey reference period, April 1997.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-14. Number of 1995 and 1996 science and engineering master's degree recipients who have not taken courses since most recent degree, and likelihood they will take additional courses, by major field of degree: April 1997

		Likelihood will take classes				
Major field of 1995-96 S&E master's degree	Total number not taking courses since most recent degree 1	Very likely	Somewhat likely	Not likely		
All science and engineering fields	87,600	46,200	29,700	11,700		
Major type						
Total science	57,700	31,100	19,100	7,500		
Total engineering		15,100	10,600	4,200		
Major field						
Computer and information sciences	13,900	6,400	5,400	2,200		
Life and related sciences, total	7,600	2,900	3,300	1,300		
Agricultural and food sciences		2,500 S	5,500 S	1,500 S		
Biological sciences		1,800	1,800	S		
Environmental life sciences including		1,000	1,000			
forestry sciences	1,600	s	s	S		
Mathematical and related sciences	4,000	2,400	1,500	s		
Physical and related sciences, total	4,000	2,200	1,400	s		
Chemistry, except biochemistry		800	s	·S		
Earth sciences, geology, and oceanography		800	s	S		
Physics and astronomy	1	s	s	S		
Other physical sciences	s	S	S	S		
Psychology	13,700	8,400	3,400	1,800		
Social and related sciences, total	14,500	8,900	4,100	1,600		
Economics	1,900	s	s	S		
Political science and related sciences	4,800	2,300	1,700	S		
Sociology and anthropology	2,100	1,300	s	S		
Other social sciences	5,700	4,200	1,100	S		
Engineering, total	29,900	15,100	10,600	4,200		
Aerospace and related engineering	700	500	S	S		
Chemical engineering		500	s	·s		
Civil and architectural engineering	4,600	2,000	1,700	1,000		
Electrical, electronic, computer and	ľ					
communications engineering		4,800	3,100	1,500		
Industrial engineering		1,200	S	. S		
Mechanical engineering		2,600	1,500	S		
Other engineering	7,300	3,500	3,100	S		

¹Most recent degree as of the survey reference period, April 1997.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-15. Number of 1995 and 1996 science and engineering bachelor's degree recipients who took courses between completing most recent degree and April 15, 1997, and type of degree sought, by major field of degree: April 1997

		Too	k courses bet	ween completin April 1	g most recent o 5, 1997 ¹	degree and we	eek of
		_			e of degree so	ought	<u> </u>
Major field of 1995-96 S&E bachelor's degree	Total recipients	Total number	No specific degree	Ph.D. degree	Prof. degree	MA degree	Other or BA degree
All science and engineering fields	708,900	271,600	37,100	21,000	46,200	134,600	32,700
Major type							
Total science	593,800	236,700	32,300	18,800	44,300	110,300	31,000
Total engineering	115,100	34,800	4,800	2,200	1,900	24,300	1,700
Major field							
Computer and information sciences	41,000	9,100	s	s	s	6,200	S
Life and related sciences, total	139,000	65,800	8,200	7,200	19,800	22,000	8,500
Agricultural and food sciences		3,700	s	s	s	1,900	9
Biological sciences		59,600	7,200	6,900	19,300	18,600	7,500
Environmental life sciences including							
forestry sciences	9,700	2,500	s	s	s	s	8
Mathematical and related sciences	26,800	10,200	s	s	s	5,900	1,300
Physical and related sciences, total	36,600	19,500	1,900	5,200	2,800	7,700	1,900
Chemistry, except biochemistry	20,100	11,100	S	3,600	2,500	3,000	, -
Earth sciences, geology, and							
oceanography	9,200	4,100	700	S	S	2,800	8
Physics and astronomy	6,900	4,100	S	1,300	-	1,900	500
Other physical sciences	s	s	s	S	s	S	9
Psychology	138,000	61,000	8,600	s	3,900	37,900	8,300
Social and related sciences, total	212,400	71,200	11,000	s	17,100	30,600	10,300
Economics		7,400	1,900	s	S	3,300	
Political science and related sciences	72,900	25,700	3,200	s	10,300	8,700	2,600
Sociology and anthropology	66,900	23,200	4,400	s	3,800	11,100	3,400
Other social sciences		14,900	s	s	s	7,500	3,600
Engineering, total	115,100	34,800	4,800	2,200	1,900	24,300	1,700
Aerospace and related engineering	3,000	1,100	s	s	S	900	9
Chemical engineering	1	3,800	s	s	S	2,400	
Civil and architectural engineering	20,700	6,200	s	S	S	3,800	
Electrical, electronic, computer and							
communications engineering	. 32,900	10,600	S	S	S	7,700	
Industrial engineering	. 5,800	1,400	S	S	s	1,000	
Mechanical engineering	27,900	7,200	S	S	s	5,600	. (
Other engineering	13,200	4,500	S	S	S	2,900	

¹Most recent degree as of the survey reference period, April 1997.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-16. Number of 1995 and 1996 science and engineering master's degree recipients who took courses between completing most recent degree and April 15, 1997, and type of degree sought, by major field of degree: April 1997

		Too	ok courses bet	ween completing		gree and w	eek of
	}			April 15	of degree sou	oht .	
Major field of 1995-96 S&E master's degree	Total recipients	Total number	No specific degree	Ph.D. degree	Prof. degree	MA degree	Other or BA degree
All science and engineering fields	149,500	53,900	8,000	32,200	3,200	6,200	4,200
Major type							
Total science	102,500	39,300	4,900	24,000	2,800	4,100	3,600
Total engineering	47,000	14,600	3,100	8,300	s	2,200	S
Major field							
Computer and information sciences	18,200	3,000	s	1,400	s	s	S
Life and related sciences, total	15,300	6,900	s	3,400	1,800	s	S
Agricultural and food sciences	2,500	S	s	s	s	s	S
Biological sciences	10,500	5,500	s	2,600	1,700	s	S
Environmental life sciences including				,	·		
forestry sciences	2,400	S	S	s	s	s	8
Mathematical and related sciences	7,900	3,300	· s	2,300	S	s	S
Physical and related sciences, total	9,700	5,400	s	3,800	s	s	S
Chemistry, except biochemistry	3,900	2,400	S	1,500	S	s	S
Earth sciences, geology, and							
oceanography	2,400	800	S	s	S	s	9
Physics and astronomy	3,000	2,100	s	1,700	s	s	5
Other physical sciences	s	S	S	s	s	s	S
Psychology	26,400	11,400	s	7,000	s	s	2,100
Social and related sciences, total	25,100	9,200	S	6,100	s	s	S
Economics	4,100	2,000	S	1,400	s	s	S
Political science and related sciences	8,100	2,900	S	1,700	s	s	S
Sociology and anthropology	4,200	2,100	S	1,800	s	S	S
Other social sciences	8,700	2,300	S	S	s	S	S
Engineering, total	47,000	14,600	3,100	8,300	s	2,200	S
Aerospace and related engineering	1,500	700	S	500	s	S	S
Chemical engineering	2,000	900	S	600	s	s	S
Civil and architectural engineering	6,500	1,600	S	S	S	s	S
Electrical, electronic, computer and						1	
communications engineering	16,100	6,000	1,400	3,400	s	900	9
Industrial engineering	3,200	s	S	S	S	s	S
Mechanical engineering	7,200	2,000	S	1,400	s	s	S
Other engineering	10,400	2,700	S	1,200	s	s	S

¹ Most recent degree as of the survey reference period, April 1997.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-17. Number of 1995 and 1996 science and engineering bachelor's degree recipients, by future plans for highest degree expected, by major field of degree: April 1997

		Future plans for highest degree expension				
Major field of 1995-96 S&E bachelor's degree	Total recipients	Bachelor's degree	Master's degree	Doctorate	Professional	
All science and engineering fields	708,900	62,200	376,700	190,900	79,200	
Major type						
Total science	593,800	49,700	298,200	170,200	75,700	
Total engineering	115,100	12,500	78,500	20,700	3,500	
Major field						
Computer and information sciences	41,000	6,500	26,500	7,400	S	
Life and related sciences, total	139,000	10,300	58,000	37,900	32,800	
Agricultural and food sciences	14,000	3,300	6,900	3,100	S	
Biological sciences	115,300	6,600	43,800	33,200	31,700	
Environmental life sciences including						
forestry sciences	9,700	S	7,300	S	. S	
Mathematical and related sciences	26,800	2,000	16,500	7,300	S	
Physical and related sciences, total	36,600	2,600	14,200	15,000	4,600	
Chemistry, except biochemistry	20,100	1,300	6,200	8,700	3,900	
Earth sciences, geology, and	-			İ		
oceanography	9,200	1,000	5,300	2,600	S	
Physics and astronomy	6,900	S	2,600	3,700	S	
Other physical sciences	S	S	S	S	S	
Psychology	138,000	8,900	66,100	55,000	8,000	
Social and related sciences, total	212,400	19,400	116,800	47,600	28,600	
Economics	33,300	3,900	21,200	6,000	2,200	
Political science and related sciences	72,900	5,300	33,400	16,200	18,000	
Sociology and anthropology	66,900	6,600	40,000	15,500	4,800	
Other social sciences	39,300	3,600	22,200	9,800	3,600	
Engineering, total	115,100	12,500	78,500	20,700	3,500	
Aerospace and related engineering		200	1,900	800	S	
Chemical engineering	11,600	1,500	6,200	3,100	800	
Civil and architectural engineering	20,700	3,600	14,100	2,500	S	
Electrical, electronic, computer and						
communications engineering	32,900	2,900	23,300	6,100	S	
Industrial engineering		s	4,500	900	S	
Mechanical engineering		2,600	20,600	4,400	S	
Other engineering	13,200	1,500	7,900	2,800	1,000	

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table B-18. Number of 1995 and 1996 science and engineering master's degree recipients, by future plans for highest degree expected, by major field of degree: April 1997

	Total recipients	Future plans for highest degree expected				
Major field of 1995-96 S&E master's degree	Total recipients	Master's degree	Doctorate	Professional		
All science and engineering fields	149,500	61,900	81,000	6,600		
Major type						
Total science	400 500	07.400				
· · · · · · · · · · · · · · · · · · ·	102,500	37,400	59,500	5,600		
Total engineering	47,000	24,500	21,500	1,000		
Major field			į			
Computer and information sciences	18,200	9,700	8,400	s		
Life and related sciences, total	15,300	5,900	7,000	2,400		
Agricultural and food sciences	2,500	1,300	1,200	S		
Biological sciences	10,500	3,400	4,600	2,400		
Environmental life sciences including		·	,	_,		
forestry sciences	2,400	1,200	1,100	S		
Mathematical and related sciences	7,900	3,100	4,600	S		
Physical and related sciences, total	9,700	3,000	6,300	S		
Chemistry, except biochemistry	3,900	1,200	2,400	S		
Earth sciences, geology, and						
oceanography	2,400	1,100	1,200	S		
Physics and astronomy	3,000	s	2,500	S		
Other physical sciences	S	S	S	S		
Psychology	26,400	6,700	19,000	S		
Social and related sciences, total	25,100	9,100	14,200	1,800		
Economics	4,100	1,400	2,600	S		
Political science and related sciences	8,100	2,900	4,200	S		
Sociology and anthropology	4,200	1,100	2,800	S		
Other social sciences	8,700	3,600	4,600	S		
Engineering, total	47,000	24,500	21,500	1,000		
Aerospace and related engineering	1,500	500	900	s .,,		
Chemical engineering	2,000	800	1,100	S		
Civil and architectural engineering	6,500	4,100	2,300	S		
Electrical, electronic, computer and	-,	.,	2,000	3		
communications engineering	16,100	7,800	8,100	S		
Industrial engineering	3,200	1,500	1,700	S		
Mechanical engineering	7,200	4,100	3,100	S		
Other engineering	10,400	5,600	4,300	S		

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table C-1. Number of 1995 and 1996 science and engineering bachelor's degree recipients who are employed, employed full time and part time counting all jobs, employed full time and part time at principal job only, and number who have a second job, by major field of degree: April 1997

·	•			Emple	oyed		
			Counting	all jobs	Principal	job only	Have a
Major field of 1995-96 S&E bachelor's degree	Total recipients	Total employed	Full time	Part time	Full time	Part time	second job
All science and engineering fields	708,900	605,900	519,200	86,700	487,700	118,200	90,000
Major type	:	ľ					
Total science	593,800	500,200	421,400	78,800	392,700	107,500	83,000
Total engineering	1	105,700	97,800	7,900	95,000	10,700	7,000
Major field			,				
Computer and information sciences	41,000	39,000	37,100	s	37,000	2,000	3,100
Life and related sciences, total	139,000	105,800	87,600	18,200	81,500	24,300	18,800
Agricultural and food sciences	i	13,100	11,800	s	11,000	2,100	2,500
Biological sciences		83,900	67,900	16,000	63,100	20,800	14,800
Environmental life sciences including							
forestry sciences	9,700	8,800	7,900	s	7,300	s	S
Mathematical and related sciences	26,800	24,600	20,500	4,100	19,300	5,300	3,900
Physical and related sciences, total	36,600	30,700	24,600	6,100	22,000	8,600	3,400
Chemistry, except biochemistry	20,100	16,000	13,200	2,800	11,800	4,200	s
Earth sciences, geology, and oceanography	9,200	8,300	6,600	1,700	6,100	2,300	1,500
Physics and astronomy	6,900	6,000	4,500	1,500	3,900	2,100	700
Other physical sciences	i	s	s	s	s	S	s
Psychology	138,000	120,100	94,600	25,600	85,900	34,200	25,400
Social and related sciences, total	212,400	180,100	157,100	23,000	147,100	33,000	28,400
Economics	33,300	30,700	27,900	2,800	27,400	3,300	2,300
Political science and related sciences	72,900	59,700	51,500	8,200	49,000	10,700	6,200
Sociology and anthropology	. 66,900	55,600	48,500	7,000	44,000	11,600	12,000
Other social sciences	39,300	34,200	29,200	5,100	26,800	7,500	7,900
Engineering, total	115,100	105,700	97,800	7,900	95,000	10,700	7,000
Aerospace and related engineering	3,000	2,800	2,400	400	2,200	500	S
Chemical engineering	11,600	10,500	9,800	700	9,400	1,200	8
Civil and architectural engineering		18,800	17,900	S	17,500	s	1,500
Electrical, electronic, computer and							
communications engineering	. 32,900	30,200	28,100	2,000	27,600	2,600	2,100
Industrial engineering	5,800	5,400	5,200	s	5,200	s	8
Mechanical engineering		26,500	24,200	2,300	23,700	2,800	. s
Other engineering	l .	11,500	10,200	1,200	9,500	2,000	S

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table C-2. Number of 1995 and 1996 science and engineering master's degree recipients who are employed, employed full time and part time counting all jobs, employed full time and part time at principal job only, and number who have a second job, by major field of degree: April 1997

		Employed						
Major field of 1995-96 S&E master's degree	Total	Total	Counting	g all jobs	Principal	l job only	Have a	
	recipients	employed	Full time	Part time	Full time	Part time	second job	
All science and engineering fields	149,500	135,800	116,000	19,800	107,500	28,300	16,300	
Major type								
Total science	102,500	91,600	74,700	16,900	67,900	23,700	13,900	
Total engineering	47,000	44,200	41,400	2,800	39,600	4,600	2,400	
Major field			:					
Computer and information sciences	18,200	17,700	16,800	s	16,600	s	1,600	
Life and related sciences, total	15,300	12,300	10,300	2,000	9,100	3,200	1,800	
Agricultural and food sciences	2,500	2,300	2,000	s	1,800	s	s	
Biological sciences	10,500	7,800	6,300	1,500	5,500	2,300	s	
Environmental life sciences including								
forestry sciences	2,400	2,200	2,000	S	1,700	s	s	
Mathematical and related sciences	7,900	7,100	5,800	1,300	5,400	1,700	S	
Physical and related sciences, total	9,700	8,400	7,100	1,400	6,200	2,200	1,000	
Chemistry, except biochemistry	3,900	3,200	2,800	s	2,400	s	S	
Earth sciences, geology, and oceanography	2,400	2,300	1,900	s	1,800	s	S	
Physics and astronomy	3,000	2,600	2,100	s	1,700	1,000	S	
Other physical sciences		S	S	S	S	S	S	
Psychology	26,400	23,500	17,800	5,700	15,200	8,300	5,200	
Social and related sciences, total	25,100	22,700	16,900	5,700	15,500	7,200	3,400	
Economics	4,100	3,700	2,300	1,400	2,100	1,600	S	
Political science and related sciences	8,100	7,100	5,400	1,600	5,200	1,900	S	
Sociology and anthropology	4,200	3,700	2,200	1,500	1,900	1,900	S	
Other social sciences	8,700	8,200	7,000	1,200	6,300	1,900	1,400	
Engineering, total	47,000	44,200	41,400	2,800	39,600	4,600	2,400	
Aerospace and related engineering	1,500	1,400	1,200	s	1,100	S	S	
Chemical engineering	2,000	1,700	1,500	s	1,400	s	S	
Civil and architectural engineering	6,500	6,300	5,800	s	5,700	s	S	
Electrical, electronic, computer and								
communications engineering	16,100	15,300	14,400	s	13,800	1,400	S	
Industrial engineering	3,200	3,100	2,800	s	2,800	s	S	
Mechanical engineering	7,200	6,700	6,300	S	5,900	s	S	
Other engineering	10,400	9,700	9,300	s	8,900	s	S	

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



84

Table C-3. Number of 1995 and 1996 science and engineering bachelor's degree recipients who are employed, unemployed, and not in the labor force, by major field of degree: April 1997

Major field of 1995-96 S&E bachelor's degree	Total recipients	Employed	Unemployed ¹	Not in labor force
All science and engineering fields	708,900	605,900	22,700	80,400
Major type				
Total science Total engineering	593,800 115,100	500,200 105,700	18,700 4,000	74,900 5,500
Major field				
Computer and information sciences	41,000	39,000	S	s
Life and related sciences, total	139,000	105,800	4,500	28,800
Agricultural and food sciences	14,000	13,100	S	S
Biological sciences	115,300	83,900	4,100	27,300
Environmental life sciences including forestry sciences	9,700	8,800	s	S
Mathematical and related sciences	26,800	24,600	S	1,800
Physical and related sciences, total	36,600	30,700	1,000	4,900
Chemistry, except biochemistry	20,100	16,000	S	3,700
Earth sciences, geology, and oceanography	9,200	8,300	S	S
Physics and astronomy	6,900	6,000	S	700
Other physical sciences	s	S	S	S
Psychology	138,000	120,100	3,000	14,800
Social and related sciences, total	212,400	180,100	8,500	23,800
Economics	33,300	30,700	S	S
Political science and related sciences	72,900	59,700	3,200	10,000
Sociology and anthropology	66,900	55,600	S	8,500
Other social sciences	39,300	34,200	S	3,600
Engineering, total	115,100	105,700	4,000	5,500
Aerospace and related engineering	3,000	2,800	S	s
Chemical engineering	11,600	10,500	S	800
Civil and architectural engineering	20,700	18,800	S	S
Electrical, electronic, computer and	,	,		
communications engineering	32,900	30,200	s	s
Industrial engineering	5,800	5,400	S	S
Mechanical engineering	27,900	26,500	S	S
Other engineering	13,200	11,500	S	1,200

¹The unemployed are those who were not working on April 15 and who were seeking work or who were on layoff from a job.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table C-4. Number of 1995 and 1996 science and engineering master's degree recipients who are employed, unemployed, and not in the labor force, by major field of degree: April 1997

Major field of 1995-96 S&E master's degree	Total recipients	Employed	Unemployed ¹	Not in labor force
All science and engineering fields	149,500	135,800	2,900	10,800
Major type				
Total science	102,500	91,600	2,100	8,900
Total engineering	· ·	44,200	S	2,000
Major field	·			• .
Computer and information sciences	18,200	17,700	S	s
Life and related sciences, total	15,300	12,300	s	2,700
Agricultural and food sciences	2,500	2,300	s	s
Biological sciences	10,500	7,800	s	2,400
Environmental life sciences including forestry sciences	2,400	2,200	s	S
Mathematical and related sciences	7,900	7,100	S	S
Physical and related sciences, total	9,700	8,400	s	1,100
Chemistry, except biochemistry	3,900	3,200	s	S
Earth sciences, geology, and oceanography	2,400	2,300	s	S
Physics and astronomy	3,000	2,600	s	S
Other physical sciences	S	, S	S	S
Psychology	26,400	23,500	s	2,100
Social and related sciences, total	25,100	22,700	s	2,000
Economics	4,100	3,700	s	S
Political science and related sciences	8,100	7,100	s	S
Sociology and anthropology	4,200	3,700	s	S
Other social sciences	8,700	8,200	S	S
Engineering, total	47,000	44,200	S	2,000
Aerospace and related engineering	1,500	1,400	s	S
Chemical engineering	2,000	1,700	S	S
Civil and architectural engineering		6,300	· s	S
Electrical, electronic, computer and communications engineering	16,100	15,300	s	S
Industrial engineering	3,200	3,100	s	S
Mechanical engineering	7,200	6,700	S	S
Other engineering	10,400	9,700	s	s

¹The unemployed are those who were not working on April 15 and who were seeking work or who were on layoff from a job.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table C-5. Number of 1995 and 1996 science and engineering bachelor's degree recipients not studying full time, by employment status and major field of degree: April 1997

				In labo	r force
Major field of 1995-96 S&E bachelor's degree	Total number	Not in labor force	In labor force	Employed	Unemployed ¹
All science and engineering fields	558,600	19,600	539,000	524,400	14,600
Major type					
Total science	458,600	18,400	440,200	428,400	11,900
Total engineering	100,000	1,200	98,700	96,000	2,700
Major field		!	i		
Computer and information sciences	38,600	s	38,000	37,400	s
Life and related sciences, total	96,000	4,300	91,700	89,500	2,300
Agricultural and food sciences	12,200	s	12,000	11,800	S
Biological sciences	75,200	3,900	71,300	69,400	S
Environmental life sciences including				0.000	
forestry sciences	8,600	S	8,400	8,200	S
Mathematical and related sciences	21,700	s	21,200	20,900	S
Physical and related sciences, total	22,600	s	22,100	21,400	S
Chemistry, except biochemistry	11,500	s	11,200	10,900	S
Earth sciences, geology, and oceanography	7,000	s	6,800	6,500	S
Physics and astronomy	3,800	s	3,800	3,700	S
Other physical sciences	S	s	S	S	S
Psychology	105,200	5,100	100,100	98,100	s
Social and related sciences, total	174,500	7,400	167,100	161,100	6,000
Economics	29,800	s	29,500	28,600	S
Political science and related sciences	56,600	2,200	54,400	52,500	S
Sociology and anthropology	55,700	s	52,300	49,900	S
Other social sciences	32,300	S	30,900	30,000	S
Engineering, total	100,000	1,200	98,700	96,000	2,700
Aerospace and related engineering	2,300	s	2,300	2,300	S
Chemical engineering		s	9,300	9,200	S
Civil and architectural engineering	17,800	S	17,600	17,200	S
Electrical, electronic, computer and					
communications engineering		S	29,200	28,100	S
Industrial engineering	5,300	S	5,300	5,200	S
Mechanical engineering		S	24,700	24,000	S
Other engineering	10,400	S	10,300	10,100	S

¹The unemployed are those who were not working on April 15 and who were seeking work or who were on layoff from a job.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table C-6. Number of 1995 and 1996 science and engineering master's degree recipients not studying full time, by employment status and major field of degree: April 1997

		Not be labor		la laba	
Major field of 100E 00 00E montade domina	Total number	Not in labor force	In labor force	In labo	
Major field of 1995-96 S&E master's degree		loice		Employed	Unemployed ¹
All science and engineering fields	118,700	3,000	115,700	113,600	2,100
Major type					
Total science	78,500	2,600	75,900	74,400	1,500
Total engineering	40,100	S	39,800	39,200	S
Major field					
Computer and information sciences	17,200	S	16,900	16,700	s
Life and related sciences, total	10,500	S	10,200	9,900	S
Agricultural and food sciences	2,000	S	1,900	1,900	S
Biological sciences	6,400	S	6,300	6,000	S
Environmental life sciences including					
forestry sciences	2,100	S	2,100	2,000	S
Mathematical and related sciences	5,700	s	5,600	5,500	s
Physical and related sciences, total	6,100	S	5,900	5,800	s
Chemistry, except biochemistry	2,200	S	2,100	2,100	S
Earth sciences, geology, and oceanography	2,000	S	1,900	1,800	s
Physics and astronomy		S	1,700	1,700	S
Other physical sciences	S	S	s	S	S
Psychology	20,400	s	19,600	19,100	S
Social and related sciences, total	18,600	S	17,700	17,400	S
Economics		s	2,400	2,300	S
Political science and related sciences	5,800	S	5,600	5,500	S
Sociology and anthropology		S	2,500	2,500	S
Other social sciences	7,600	· S	7,200	7,200	S
Engineering, total	40,100	S	39,800	39,200	S
Aerospace and related engineering		S	1,000	1,000	S
Chemical engineering		S	1,300	1,300	S
Civil and architectural engineering	5,800	S	5,800	5,700	s
Electrical, electronic, computer and					
communications engineering	13,800	S	13,600	13,500	s
Industrial engineering		S	2,700	2,700	S
Mechanical engineering	6,000	S	6,000	5,900	S
Other engineering	9,400	S	9,400	9,100	S

¹The unemployed are those who were not working on April 15 and who were seeking work or who were on layoff from a job.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table C-7. Number of 1995 and 1996 science and engineering bachelor's degree recipients who are not working, and reasons for not working, by major field of degree: April 1997

				Re	easons for no	ot working)	
				Suitable	Family		Not need/	
	Total	Total not		job not	respon-	On	want to	.
Major field of 1995-96 S&E bachelor's degree	recipients	working	Student	available	sibilities	layoff	work	Other
All science and engineering fields	708,900	103,000	73,600	18,000	17,100	3,600	38,800	10,500
Major type								
Total science	593,800	93,600	67,700	15,700	16,200	2,700	36,000	9,700
Total engineering	115,100	9,400	5,900	2,300	900	S	2,800	S
Major field								
Computer and information sciences	41,000	S	S	s	S	s	S	S
Life and related sciences, total	139,000	33,200	27,600	3,400	2,500	s	11,100	s
Agricultural and food sciences	14,000	S	S	S	S	s	S	s
Biological sciences	115,300	31,400	26,500	2,900	S	s	10,600	s
Environmental life sciences including								
forestry sciences	9,700	s	s	s	s	S	S	s
Mathematical and related sciences	26,800	2,300	1,500	S	s	s	s	s
Physical and related sciences, total	36,600	5,900	5,000	900	s	s	2,200	s
Chemistry, except biochemistry	20,100	4,100	3,600	S	S	S	1,700	S
Earth sciences, geology, and oceanography	9,200	900	S	S	S	S	S	s
Physics and astronomy	6,900	900	800	S	S	S	S	S
Other physical sciences	S	S	S	S	S	S	S	S
Psychology	138,000	17,900	11,800	3,800	5,400	s	7,500	S
Social and related sciences, total	212,400	32,300	20,700	6,600	7,100	s	13,500	4,100
Economics		2,700	S	S	S	S	S	S
Political science and related sciences		13,200	9,600	2,100	S	S	4,600	S
Sociology and anthropology		11,300	6,400	S	3,700	S	5,000	S
Other social sciences	39,300	5,100	3,000	S	S	S	2,700	S
Engineering, total		9,400	5,900	2,300	900	s	2,800	S
Aerospace and related engineering		300	S	S	S	S	S	S
Chemical engineering		1,100	S	S	S	S	S	S
Civil and architectural engineering	20,700	1,900	S	S	S	S	S	S
Electrical, electronic, computer and								1
communications engineering		2,800	1,400	S	S	S	S	S
Industrial engineering		S	S	S	S	S	S	S
Mechanical engineering		1,400	S	S	S	S	S	S
Other engineering	13,200	1,700	1,400	S	S	S	S_	S

NOTES: Details may not add to totals because of rounding and also because respondents can mark more than one reason for not working.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table C-8. Number of 1995 and 1996 science and engineering master's degree recipients who are not working, and reasons for not working, by major field of degree: April 1997

			Reasons for not working						
Major field of 1995-96 S&E master's degree	Total recipients	Total not working	Student	Suitable job not available	Family respon- sibilities	On layoff	Not need/ want to work	Other	
All science and engineering fields	149,500	13,700	8,900	2,200	2,900	s	5,200	1,500	
Major type									
Total science	102,500 47,000	10,900 2,800	7,000 1,900	1,500 S	2,200 S	S S	4,200 1,000	1,400 S	
Major field									
Computer and information sciences	18,200	S	S	s	s	s	s	s	
Life and related sciences, total	15,300 2,500 10,500	3,100 S 2,600	2,500 S 2,300	S S S	S S S	S S S	1,200 S 1,000	S S S	
forestry sciences	2,400	S	s	s	S	s	s	s	
Mathematical and related sciences	7,900	S	s	s	S	s	s	s	
Physical and related sciences, total	3,900 2,400 3,000	1,200 S S S S	1,000 S S S S	\$ \$ \$ \$ \$	8888	\$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$	S S S S	
Psychology	26,400	2,900	1,600	s	s	s	s	S	
Social and related sciences, total Economics Political science and related sciences Sociology and anthropology Other social sciences	4,100 8,100 4,200	2,400 S 1,000 S S	1,300 S S S S	S S S S	S S S S S	\$ \$ \$ \$ \$ \$ \$	1,100 S S S S	\$ \$ \$ \$ \$	
Engineering, total Aerospace and related engineering Chemical engineering Civil and architectural engineering	1,500 2,000	2,800 S S S	1,900 S S S	\$ \$ \$ \$	\$ \$ \$ \$	\$ \$ \$ \$	1,000 S S S	\$ \$ \$ \$	
Electrical, electronic, computer and communications engineering Industrial engineering Mechanical engineering Other engineering	3,200	900 S S S	S S S	S S S	\$ \$ \$ \$	S S S	S S S	S S S	

NOTES: Details may not add to totals because of rounding and also because respondents can mark more than one reason for not working.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-1. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by occupation and major field of degree: April 1997

Page 1 of 2

		S&E occupation								
Major field of 1995-96 S&E bachelor's degree	Total employed	Computer and information scientists	Life and related scientists	Mathematical scientists	Physical scientists	Psycholo- gists	Social and related scientists	Engineers		
All science and engineering fields	605,900	49,900	19,400	4,100	17,200	11,500	10,600	74,500		
Major type										
Total science Total engineering	500,200 105,700	37,700 12,200	19,100 S	3,600 S	16,500 S	11,400 S	10,600 S	4,800 69,700		
Major field							:			
Computer and information sciences	39,000	23,300	s	s	s	s	s	s		
Life and related sciences, total	105,800 13,100 83,900	S S S	16,600 2,200 13,500	S S S	3,200 S 2,700	S S S	S S S	S S S		
Environmental life sciences including forestry sciences	8,800	s	s	s	s	s	s	s		
Mathematical and related sciences	24,600	2,700	s	3,100	s	s	s	S		
Physical and related sciences, total		1,300 S	1,100 S	S S	12,600 7,800	S S	s s	1,900 S		
Earth sciences, geology, and oceanography Physics and astronomy Other physical sciences	6,000	900 S	S S S	S S S	3,000 1,800 S	S S S	S S S	S 1,000 S		
Psychology	120,100	s	s	s	S	10,800	s	s		
Social and related sciences, total Economics Political science and related sciences Sociology and anthropology Other social sciences	30,700 59,700 55,600	6,000 S S S S	\$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$	9,100 2,500 2,800 S S	S S S S		
Engineering, total	2,800 10,500	12,200 300 S S	\$ \$ \$ \$	\$ \$ \$ \$	\$ \$ \$ \$	\$ \$ \$ \$	\$ \$ \$ \$	69,700 1,500 7,400 13,800		
Electrical, electronic, computer and communications engineering		8,100 700 S 1,000	S S S	\$ \$ \$ \$	\$ \$ \$ \$	\$ \$ \$ \$	S S S	16,500 3,200 20,600 6,700		

See notes and source at end of table, next page.



Table D-1. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by occupation and major field of degree: April 1997

Page 2 of 2

	Non-S&E occupation							
Major field of 1995-96 S&E bachelor's degree	Management, sales, and marketing	Teachers, except postsecondary S&E	Health and social services	Technologists and technicians				
All science and engineering fields	210,000	84,700	57,700	66,400				
Major type Total science	196,900	83,200	52,700	63,700				
Total engineering	13,100	1,500	5,000	2,600				
Major field Computer and information sciences	4,200	s	8,700	s				
Life and related sciences, total	37,400	11,000	22 100	10 500				
Agricultural and food sciences	6,300	11,000 S	23,100 S	10,500 2,000				
Biological sciences	27,800	9,200	20,100	7,500				
Environmental life sciences including	27,000	3,200	20,100	7,300				
forestry sciences	3,400	s	s	s				
Mathematical and related sciences	6,000	7,600	3,100	s				
Physical and related sciences, total	6,200	2,200	4,000	1,300				
Chemistry, except biochemistry Earth sciences, geology, and	2,900	S	2,500	S				
oceanography	2,300	900	900	S				
Physics and astronomy	900	S	600	S				
Other physical sciences	S	S	S	S				
Psychology	50,700	32,500	8,000	14,600				
Social and related sciences, total	92,500	29,400	5,800	34,700				
Economics	14,800	S	s	8,200				
Political science and related sciences	35,000	4,800	s	13,400				
Sociology and anthropology	26,100	14,900	S	8,500				
Other social sciences	16,600	7,800	s	4,600				
Engineering, total	13,100	1,500	5,000	2,600				
Aerospace and related engineering	700	S	s	S				
Chemical engineering	900	S	s	S				
Civil and architectural engineering	2,800	S	S	S				
Electrical, electronic, computer and								
communications engineering	3,000	S	1,700	S				
Industrial engineering	1,000	S	S	S				
Mechanical engineering	2,800	S	S	S				
Other engineering	1,900	S	S	S				

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-2. Number of employed 1995 and 1996 science and engineering master's degree recipients, by occupation and major field of degree: April 1997

Page 1 of 2

			S8	E occupatio				rage 1012
		Computer			<u> </u>			
·		and	Life and	Mathe-			Social and	
	Total	information	related	matical	Physical	Psycholo-	related	
Major field of 1995-96 S&E master's degree	employed	scientists	scientists	scientists	scientists	gists	scientists	Engineers
All science and engineering fields	135,800	23,800	6,600	3,400	6,800	9,600	6,100	33,500
Major type								
Total science	91,600	16,300	6,300	3,200	6,000	9,600	6,100	2,900
Total engineering	44,200	7,500	S	S	S	S	S	30,600
Major field								
Computer and information sciences	17,700	13,400	s	s	s	s	S	s
Life and related sciences, total		s	5,500	s	s	s	s	s
Agricultural and food sciences	2,300	S	1,500	S	S	S	S	S
Biological sciences	7,800	S	3,600	S	S	S	S	S
Environmental life sciences including		_	_			_		
forestry sciences	2,200	S	S	S	S	S	S	S
Mathematical and related sciences	7,100	1,100	S	2,600	S	S	s	S
Physical and related sciences, total		600	s	S	5,000	S	S	S
Chemistry, except biochemistry	3,200	S	S	S	2,200	S	S	S
Earth sciences, geology, and		_						
oceanography		S	S	S	1,500	S	S	S
Physics and astronomy		S	S	S	1,300	S	S	S
Other physical sciences	S	s	S	S	S	S	s	S
Psychology	23,500	s	s	s	s	9,400	S	S
Social and related sciences, total	22,700	s	s	S	s	S	5,800	S
Economics		s	S	S	S	S	1,700	S
Political science and related sciences		S	S	S	S	S	1,800	S
Sociology and anthropology	3,700	S	S	S	S	S	1,600	S
Other social sciences		S	S	S	S	S	S	S
Engineering, total	44,200	7,500	s	s	s	s	s	30,600
Aerospace and related engineering	1,400		S	S	S	S	S	900
Chemical engineering		S	S	S	S	S	S	1,500
Civil and architectural engineering	6,300	S	s	S	S	S	S	4,800
Electrical, electronic, computer and				_	_	_	_	
communications engineering		4,300	S	S	S	S	S	9,600
Industrial engineering			S	S	S	S	S	1,900
Mechanical engineering			S	S	S	S	S	5,400
Other engineering	9,700	1,500	S	S	S	S	S	6,400

See notes and source at end of table, next page.



94

Table D-2. Number of employed 1995 and 1996 science and engineering master's degree recipients, by occupation and major field of degree: April 1997

Page 2 of 2

	No	n-S&E occupation		rage 2 01 2
Major field of 1995-96 S&E master's degree	Management, sales, and marketing	Teachers, except postsecondary S&E	Health and social services	Technologists and technicians
All science and engineering fields	20,000	14,200	7,900	3,900
Major type				
Total science	17,300	13,900	6,700	3,400
Total engineering	•	s	1,200	s
Major field				
Computer and information sciences	s	s	2,300	s
Life and related sciences, total	1,600	1,300	1,600	s
Agricultural and food sciences		S	S	s
Biological sciences		S	1,300	s
Environmental life sciences including				
forestry sciences	S	S	·S	S
Mathematical and related sciences	1,200	S	s	s
Physical and related sciences, total	700	700	S	s
Chemistry, except biochemistry	S	S	S	s
Earth sciences, geology, and				
oceanography		S	S	s
Physics and astronomy		S	S	S
Other physical sciences	S	s	S	S
Psychology	4,200	6,700	s	s
Social and related sciences, total	8,900	4,100	s	1,500
Economics	S	S	S	S
Political science and related sciences	,	S	S	S
Sociology and anthropology	S	800	S	S
Other social sciences	3,200	2,600	S	S
Engineering, total	2,700	S	1,200	S
Aerospace and related engineering	S	S	S	S
Chemical engineering		s	S	S
Civil and architectural engineering		S	S	S
Electrical, electronic, computer and	S	S	S	s
communications engineering	S	S	S	s
Industrial engineering	S	S	S	s
Mechanical engineering	S	S	S	s
Other engineering	S	s	S	s

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-3. Number of 1995 and 1996 science and engineering bachelor's degree recipients who have had a career path job since being awarded most recent degree, and number not having career path job who are seeking one, by sex and major field of degree: April 1997

	1 1		Number not having	Number of career path	f those not job who ar	_		
	Total	Number ha	ving a care	er path job	career		reer path j	-
Major field of 1995-96 S&E bachelor's degree	recipients	Total	Male	Female	path job	Total	Male	Female
All science and engineering fields	708,900	332,900	187,600	145,200	376,100	148,800	72,200	76,600
Major type								
Total science	593,800	254,400	123,400	131,000	339,400	129,500	55,700	73,800
Total engineering	115,100	78,500	64,200	14,200	36,700	19,300	16,400	2,900
Major field				,				
Computer and information sciences	41,000	29,500	22,100	7,400	11,500	6,000	3,700	2,300
Life and related sciences, total	139,000	51,100	24,000	27,100	87,900	33,300	15,100	18,200
Agricultural and food sciences		7,700	4,700	3,100	6,200	3,400	2,200	S
Biological sciences		39,200	17,100	22,200	76,000	26,200	10,900	15,300
Environmental life sciences including								
forestry sciences	9,700	4,200	2,300	1,900	5,600	3,700	2,100	S
Mathematical and related sciences	26,800	15,000	7,200	7,800	11,800	3,700	1,800	1,900
Physical and related sciences, total	36,600	13,700	8,700	5,000	22,900	6,000	4,200	1,800
Chemistry, except biochemistry	20,100	7,300	4,100	3,200	12,700	2,600	1,600	S
Earth sciences, geology, and oceanography	9,200	3,600	2,400	1,200	5,600	2,300	1,700	600
Physics and astronomy	6,900	2,600	2,100	600	4,300	1,100	900	S
Other physical sciences	. s	S	S	s	s	S	S	S
Psychology	138,000	54,900	16,200	38,600	83,100	33,000	8,600	24,400
Social and related sciences, total	212,400	90,200	45,200	45,000	122,200	47,500	22,200	25,200
Economics	. 33,300	18,400	12,700	5,800	14,900	4,900	3,300	S
Political science and related sciences	. 72,900	28,300	14,700	13,600	44,600	15,600	8,500	7,100
Sociology and anthropology	. 66,900	24,600	10,500	14,100	42,300	18,600	6,500	12,100
Other social sciences	. 39,300	18,800	7,300	11,500	20,500	8,400	3,900	4,500
Engineering, total	. 115,100	78,500	64,200	14,200	36,700	19,300	16,400	2,900
Aerospace and related engineering	. 3,000	1,800	1,500	300	1,200	600	600	S
Chemical engineering	11,600	6,800	4,500	2,400	4,800	2,700	1,800	1,000
Civil and architectural engineering	20,700	14,800	11,800	3,000	5,900	2,800	2,700	S
Electrical, electronic, computer and	1							
communications engineering		22,800	20,100	2,700	10,200	5,600	5,100	S
Industrial engineering		4,200	3,000	1,200	1,600	700	500	S
Mechanical engineering		20,600	17,800	2,800	7,400		4,100	S
Other engineering	13,200	7,600	5,700	1,900	5,600	2,300	1,700	S

S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. KEY:

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-4. Number of 1995 and 1996 science and engineering master's degree recipients who have had a career path job since being awarded most recent degree, and number not having career path job who are seeking one, by sex and major field of degree: April 1997

	Total	otal Number naving a career path			Number not having career path	career path	of those no n job who a areer path	ıre seeking
Major field of 1995-96 S&E master's degree	recipients	Total	Male	Female	job	Total	Male	Female
All science and engineering fields	149,500	97,500	59,000	38,500	52,000	15,700	8,500	7,300
Major type								!
Total science		62,900 34,500	30,600 28,300	32,300 6,200	39,600 12,400	11,700 4,000	4,900 3,500	6,800 S
Major field								
Computer and information sciences	18,200	15,400	11,800	3,600	2,800	s	s	s
Life and related sciences, total	2,500	8,600 1,300 5,700	4,400 S 2,600	4,100 S 3,100	6,800 1,200 4,800	1,900 S S	s s	1,100 S S
Environmental life sciences including forestry sciences	2,400	1,500	1,100	s	s	s	s	s
Mathematical and related sciences	7,900	4,800	2,900	1,900	3,100	s	s	s
Physical and related sciences, total	3,900 2,400 3,000	4,200 1,900 1,300 800 S	2,800 1,100 900 700 S	1,400 800 S S	5,500 2,000 1,100 2,200 S	\$ 1,700 \$ 600 \$ \$	1,200 S S S	\$ \$ \$ \$
Psychology	26,400	17,600	3,200	14,400	8,800	2,300	s	1,900
Social and related sciences, total	4,100 8,100 4,200	12,400 1,600 3,700 2,000 5,000	5,500 1,100 1,900 S 1,800	6,900 S 1,800 1,400 3,200	12,700 2,600 4,300 2,200 3,700	4,400 S 1,900 S 1,300	1,600 S S S	2,800 S S S
Engineering, total		34,500 900 1,100 5,100	28,300 800 800 3,800	6,200 S S 1,200	12,400 600 900 1,400	4,000 S S S	3,500 S S	S S S
communications engineering Industrial engineering Mechanical engineering Other engineering KEY: S = Data with weighted values less than	7,200 10,400	12,400 2,300 5,100 7,500	10,700 1,900 4,400 6,000	1,800 S S 1,500	3,700 800 2,100 2,900	S S S 1,300	S S S 1,200	S S S

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-5. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients having job closely, somewhat, and not related to degree, by major field of degree: April 1997

	Total	Rela	ationship of job to deg	ree
Major field of 1995-96 S&E bachelor's degree	employed	Closely related	Somewhat related	Not related
All science and engineering fields	605,900	242,400	178,600	184,900
Major type				
Total science	500,200	184,700	141,900	173,500
Total engineering	105,700	57,700	36,600	11,400
M ajor field				
Computer and information sciences	39,000	27,800	8,600	2,600
Life and related sciences, total	105,800	40,500	29,400	35,800
Agricultural and food sciences	13,100	6,800	2,700	3,600
Biological sciences	83,900	30,600	24,100	29,100
Environmental life sciences including forestry sciences	8,800	3,100	2,600	3,100
Mathematical and related sciences	24,600	13,100	6,400	5,000
Physical and related sciences, total	30,700	16,400	7,100	7,200
Chemistry, except biochemistry	16,000	9,800	2,900	3,300
Earth sciences, geology, and oceanography	8,300	3,900	2,000	2,400
Physics and astronomy	6,000	2,500	2,000	1,500
Other physical sciences	S	S	S S	S
Psychology	120,100	40,200	36,500	43,400
Social and related sciences, total	180,100	46,800	54,000	79,400
Economics	30,700	9,500	12,100	9,100
Political science and related sciences		11,500	15,300	32,800
Sociology and anthropology		15,300	17,400	22,800
Other social sciences	34,200	10,400	9,200	14,600
Engineering, total		57,700	36,600	11,400
Aerospace and related engineering	2,800	1,300	900	600
Chemical engineering	10,500	4,700	4,100	1,700
Civil and architectural engineering	18,800	12,600	4,900	S
Electrical, electronic, computer and	1			
communications engineering		17,200	10,400	2,600
Industrial engineering		2,300	2,300	800
Mechanical engineering		14,200	10,200	2,200
Other engineering	11,500	5,400	3,800	2,300

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-6. Number of employed 1995 and 1996 science and engineering master's degree recipients having job closely, somewhat, and not related to degree, by major field of degree: April 1997

	Total	Rela	ationship of job to deg	ree
Major field of 1995-96 S&E master's degree	employed	Closely related	Somewhat related	Not related
All science and engineering fields	135,800	89,200	34,200	12,400
Major type				
Total science	91,600	60,900	21,600	9,200
Total engineering	44,200	28,400	12,600	3,200
Major field			,	
Computer and information sciences	17,700	14,100	3,100	s
Life and related sciences, total	12,300	8,000	3,200	1,100
Agricultural and food sciences	2,300	1,800	s	S
Biological sciences	7,800	5,000	2,000	S
Environmental life sciences including forestry sciences	2,200	1,200	s	S
Mathematical and related sciences	7,100	4,400	2,000	S
Physical and related sciences, total	8,400	5,700	1,900	800
Chemistry, except biochemistry	3,200	2,500	l s	S
Earth sciences, geology, and oceanography	2,300	1,400	600	S
Physics and astronomy	2,600	1,700	700	S
Other physical sciences	S	S	s	S
Psychology	23,500	16,300	4,900	2,300
Social and related sciences, total	22,700	12,400	6,500	3,800
Economics	3,700	1,900	1,100	S
Political science and related sciences	7,100	3,400	2,400	1,300
Sociology and anthropology	3,700	2,200	S	S
Other social sciences	8,200	4,800	2,200	S
Engineering, total	44,200	28,400	12,600	3,200
Aerospace and related engineering	1,400	800	s	S
Chemical engineering	1,700	1,100	500	S
Civil and architectural engineering	6,300	4,400	1,500	S
Electrical, electronic, computer and	·	·	'	
communications engineering	15,300	10,600	4,100	S
Industrial engineering	3,100	1,700	1,100	S
Mechanical engineering	6,700	3,800	2,200	S
Other engineering	9,700	6,000	2,800	1,000

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-7. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by sex, race/ethnicity, and occupation: April 1997

		S	ех		R	ace/ethnicit	ty	
Occupation	Total employed	Male	Female	White, non- Hispanic	Black, non- Hispanic	Hispanic	Asian or Pacific Islander	American Indian/ Alaskan Native
All employed science and engineering graduates	605,900	319,700	286,200	468,500	42,400	41,300	48,400	5,400
Occupation type								
Total scientists	112,700	69,100	43,600	86,900	6,000	6,700	12,300	s
Total engineers	74,500	61,600	12,900	57,900	3,700	4,700	7,800	S
Total other occupations	418,700	189,000	229,700	323,600	32,700	30,000	28,300	4,100
Occupation ¹								
Computer and information scientists	49,900	38,100	11,800	37,200	3,300	2,100	7,400	s
Life and related scientists	19,400	9,200	10,200	16,100	S	1,200	S	s
Mathematical and related scientists	4,100	2,300	1,800	2,700	S	S	S	s
Physical scientists	17,200	10,500	6,700	14,800	700	S	1,200	S
Psychologists	11,500	4,200	7,300	8,500	S	S	S	S
Social and related scientists	10,600	4,800	5,900	7,500	s	s	S	s
Engineers	74,500	61,600	12,900	57,900	3,700	4,700	7,800	S
Managers and related occupations	39,800	22,300	17,600	29,400	2,800	3,200	4,200	S
Health and related occupations	25,000	8,200	16,800	18,000	1,800	1,800	S	S
Educators other than S&E								
postsecondary	50,200	16,500	33,800	39,600	3,900	3,600	2,600	S
Social services and related occupations Technicians including computer	34,400	9,900	24,500	23,800	5,100	2,800	s	s
programmers	32,600	21,900	10,700	25,200	1,700	1,500	4,200	s
Sales and marketing occupations	•	36,900	29,500	53,400	4,500	4,700	3,100	S
Other occupations	170,100	73,300	96,800	134,300	12,800	12,300	9,000	1,800

¹Science and engineering categories include postsecondary educators. For more details see technical notes.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-8. Number of employed 1995 and 1996 science and engineering master's degree recipients, by sex, race/ethnicity, and occupation: April 1997

	_	S	ex	Race/ethnicity						
Occupation	Total employed	Male	Female	White, non- Hispanic	Black, non- Hispanic	Hispanic	Asian or Pacific Islander	American Indian/ Alaskan Native		
All employed science and										
engineering graduates	135,800	81,900	53,900	95,100	6,300	6,000	27,600	700		
Occupation type										
Total scientists	56,300	33,800	22,500	37,000	2,400	2,100	14,700	s		
Total engineers	33,500	27,900	5,600	22,500	1,100	1,100	8,600	S		
Total other occupations	46,000	20,200	25,800	35,600	2,800	2,700	4,400	. S		
Total office occupations	40,000	20,200	20,000	00,000	2,000	2,700	7,700	3		
Occupation ¹										
Computer and information				:		,				
scientists	23,800	18,100	5,600	11,200	700	600	11,200	S		
Life and related scientists	6,600	3,500	3,100	5,300	s	s l	Ś	S		
Mathematical and related scientists	3,400	1,900	1,500	2,400	s	s	S	S		
Physical scientists	6,800	5,200	1,600	5,100	S	s	1,100	s		
Psychologists		1,800	7,800	8,400	S	s	S	· S		
Social and related scientists	6,100	3,300	2,900	4,600	s	s	S	s		
Engineers	33,500	27,900	5,600	22,500	1,100	1,100	8,600	S		
Managers and related occupations	8,600	4,700	3,900	6,200	600	700	S	S		
Health and related occupations	2,500	s	1,800	2,100	S	s	s	S		
Educators other than S&E										
postsecondary	8,400	2,800	5,700	7,100	500	s	s	S		
Social services and related								s		
occupations	5,800	1,400	4,400	4,600	S	s	S	S		
Technicians including computer										
programmers	5,400	3,500	1,900	3,100	S	s	1,700	S		
Sales and marketing occupations	3,900	2,100	1,800	3,200	s	s	S			
Other occupations	11,400	5,100	6,400	9,400	700	s	S	S		

¹Science and engineering categories include postsecondary educators. For more details see technical notes.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-9. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by age and occupation: April 1997

			Age		
Occupation	Total employed	Less than 25	25–29	30–34	35 or more
All employed science and engineering graduates	605,900	342,400	186,300	32,700	44,500
Occupation type					
Total scientists	112,700	62,500	33,600	7,100	9,500
Total engineers	74,500	37,000	26,600	6,400	4,600
Total other occupations	418,700	243,000	126,100	19,200	30,400
Occupation ¹					i
Computer and information scientists	49,900	22,800	17,400	4,200	5,500
Life and related scientists	19,400	11,000	5,500	S	S
Mathematical and related scientists	4,100	2,300	1,500	S	S
Physical scientists	17,200	10,500	4,900	1,000	S
Psychologists	11,500	7,500	2,800	S	S
Social and related scientists	10,600	8,200	S	s	s
Engineers	74,500	37,000	26,600	6,400	4,600
Managers and related occupations		22,200	12,000	1,900	3,700
Health and related occupations		15,200	6,900	S	s
Educators other than S&E postsecondary	50,200	30,400	14,200	2,500	3,200
Social services and related occupations	34,400	17,700	9,400	s	5,500
Technicians including computer programmers		17,700	10,500	2,100	2,300
Sales and marketing occupations		39,200	22,700	2,600	S
Other occupations		100,500	50,400	7,300	12,000

¹Science and engineering categories include postsecondary educators. For more details see technical notes.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-10. Number of employed 1995 and 1996 science and engineering master's degree recipients, by age and occupation: April 1997

		Age						
Occupation	Total employed	Less than 25	25–29	30–34	35 or more			
All employed science and engineering graduates	135,800	5,500	63,300	34,300	32,700			
Occupation type								
Total scientists	56,300	2,300	28,100	14,800	11,100			
Total engineers	33,500	1,600	16,000	9,500	6,300			
Total other occupations	46,000	1,600	19,200	10,000	15,300			
Occupation ¹	•							
Computer and information scientists	23,800	1,200	11,200	7,200	4,200			
Life and related scientists	6,600	S	3,400	1,600	1,300			
Mathematical and related scientists	3,400	S	1,600	1,200	S			
Physical scientists	6,800	S	3,500	1,800	1,200			
Psychologists	9,600	S	4,900	1,600	2,800			
Social and related scientists	6,100	S	3,500	1,400	S			
Engineers	33,500	1,600	16,000	9,500	6,300			
Managers and related occupations	8,600	S	3,500	2,200	2,500			
Health and related occupations	2,500	S	s	S	S			
Educators other than S&E postsecondary	8,400	S	3,300	1,300	3,400			
Social services and related occupations	5,800	S	2,500	S	2,300			
Technicians including computer programmers	5,400	S	2,500	1,100	1,600			
Sales and marketing occupations		S	1,200	S	S			
Other occupations	11,400	S	5,000	2,600	3,400			

¹Science and engineering categories include postsecondary educators. For more details see technical notes.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-11. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by primary work activity and major field of degree: April 1997

			Prima	ry work activity	-	
Major field of 1995-96 S&E bachelor's degree	Total employed	Research and development	Computer applications	Management, sales, administration	Teaching	Other
All science and engineering fields	605,900	106,500	83,700	229,200	70,800	115,700
Major type						
Total science Total engineering	500,200 105,700	63,700 42,700	63,100 20,600	198,500 30,700	67,400 3,300	107,400 8,300
Major field						
Computer and information sciences	39,000	5,000	25,700	6,200	s	S
Life and related sciences, total		24,700 2,100 20,600	4,900 S 3,800	37,400 6,000 27,900	15,100 S 12,800	23,600 3,300 18,800
forestry sciences	8,800	2,100	S	3,500	s	S
Mathematical and related sciences	24,600	1,800	6,000	5,600	8,800	2,300
Physical and related sciences, total	16,000 8,300 6,000	10,500 6,600 2,000 1,800 S	2,700 S 900 1,400 S	7,300 4,000 2,500 700 S	5,800 2,800 1,500 1,300 S	4,500 2,400 1,400 700 S
Psychology	120,100	9,700	7,000	47,200	19,500	36,700
Social and related sciences, total Economics Political science and related sciences Sociology and anthropology Other social sciences	180,100 30,700 59,700 55,600 34,200	11,900 2,600 4,400 S 2,600	16,800 4,000 5,100 4,100 3,500	95,000 18,800 33,800 26,700 15,800	17,800 S 3,000 6,700 5,900	38,700 3,100 13,500 15,700 6,400
Engineering, total Aerospace and related engineering Chemical engineering Civil and architectural engineering Electrical, electronic, computer and	10,500 18,800	42,700 1,200 4,500 6,900	20,600 500 1,300 2,500	30,700 500 3,400 7,100	3,300 S S S	8,300 400 1,100 2,100
Industrial engineering	11,500	10,600 1,200 14,200 4,200	10,400 1,300 2,600 2,100	6,500 2,400 7,400 3,400	\$ \$ \$ \$	1,700 500 S 1,300

NOTES: Details may not add to totals because of rounding.

Primary work activity is defined as activity in which respondent worked most hours on job in typical work week.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-12. Number of employed 1995 and 1996 science and engineering master's degree recipients, by primary work activity and major field of degree: April 1997

activity and major neid of degree. April 199	-		Prin	nary work activity	,	
Major field of 1995-96 S&E master's degree	Total employed	Research and development	Computer applications	Management, sales, administration	Teaching	Other
All science and engineering fields	135,800	40,400	28,800	26,500	17,000	23,100
Major type						
Total science		19,100 21,300	18,700 10,100	18,300 8,300	15,400 1,600	20,200 2,900
Major field	,		,	-,,	,,,,,,,	_,000
Computer and information sciences	17,700	2,700	12,400	1,700	s	s
Life and related sciences, total	12,300	5,000	S	2,200	2,000	2,300
Agricultural and food sciences Biological sciences	2,300 7,800	1,100 3,300	S S	S S	1,800	S 1,400
Environmental life sciences including	7,000	3,300	3	3	1,800	1,400
forestry sciences	2,200	S	S	1,000	S	s
Mathematical and related sciences	7,100	1,600	1,700	1,100	2,300	s
Physical and related sciences, total	8,400	4,500	900	1,000	1,500	s
Chemistry, except biochemistry		2,100	S	S	800	s
Earth sciences, geology, and oceanography	2,300	1,000	S	S	S	S
Physics and astronomy		1,400	S	S	S	S
Other physical sciences	S	S	´S	S	S	S
Psychology	23,500	1,800	s	5,100	3,700	12,100
Social and related sciences, total	22,700	3,600	2,000	7,100	5,100	4,800
Economics	3,700	S	S	1,100	S	S
Political science and related sciences	7,100	1,100	S	3,400	S	1,300
Sociology and anthropology		S	S	S	1,000	1,100
Other social sciences	8,200	S	S	2,000	2,100	2,100
Engineering, total	44,200	21,300	10,100	8,300	1,600	2,900
Aerospace and related engineering	1,400	600	400	S	S	s
Chemical engineering	1,700	1,200	S	S	S	S
Civil and architectural engineering	6,300	2,500	1,200	1,400	S	1,100
Electrical, electronic, computer and	_					
communications engineering	15,300	7,900	5,000	1,900	S	S
Industrial engineering	3,100	900	S	1,000	S	S
Mechanical engineering	6,700	4,000	S	1,000	S	S
Other engineering	9,700	4,300	1,800	2,500	S	S

NOTES: Details may not add to totals because of rounding.

> Primary work activity is defined as activity in which respondent worked most hours on job in typical work week. These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or

master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications. SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



Table D-13. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by primary work activity and occupation: April 1997

			Prir	mary work activity	1	
Occupation	Total employed	Research and development	Computer applications	Management, sales, administration	Teaching	Other
All employed science and engineering graduates	605,900	106,500	83,700	229,200	70,800	115,700
Occupation type						
Total scientists	112,700	37,600	39,300	12,900	14,500	8,400
Total engineers	74,500	40,400	8,600	18,800	2,000	4,800
Total other occupations	418,700	28,500	35,800	197,600	54,300	102,500
Occupation ¹						
Computer and information scientists	49,900	6,200	36,500	5,600	s	S
Life and related scientists	19,400	14,100	S	S	3,000	S
Mathematical and related scientists	4,100	s	S	s	2,000	S
Physical scientists	17,200	8,700	600	2,500	4,600	S
Psychologists	11,500	S	S	S	S	4,700
Social and related scientists	10,600	4,800	s	2,000	s	s
Engineers	74,500	40,400	8,600	18,800	2,000	4,800
Managers and related occupations	39,800	s	2,300	32,100	s	3,100
Health and related occupations	25,000	2,700	Ś	3,600	s	17,000
Educators other than S&E postsecondary	50,200	S	S	4,100	44,100	S
Social services and related occupations Technicians including computer	34,400	s	s	8,100	s	22,700
programmers	32,600	9,900	15,000	4,700	s	2,800
Sales and marketing occupations	66,400	l s	S	60,200	s	2,400
Other occupations	170,100	10,300	14,700	84,900	6,300	54,000

¹Science and engineering categories include postsecondary educators. For more details see technical notes.

NOTES: Details may not add to totals because of rounding.

Primary work activity is defined as activity in which respondent worked most hours on job in typical work week.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-14. Number of employed 1995 and 1996 science and engineering master's degree recipients, by primary work activity and occupation: April 1997

		_	Pr	imary work activi	ity	
Occupation	Total employed	Research and development	Computer applications	Management, sales, administration	Teaching	Other
All employed science and engineering						
graduates	135,800	40,400	28,800	26,500	17,000	23,100
Occupation type						
Total scientists	56,300	16,100	19,000	4,700	7,700	8,800
Total engineers	33,500	20,400	3,800	5,700	1,100	2,500
Total other occupations	46,000	4,000	6,000	16,100	8,200	11,800
Occupation ¹						
Computer and information scientists	23,800	3,400	17,700	1,900	s	S
Life and related scientists	6,600	4,400	S	s	s	S
Mathematical and related scientists	3,400	1,200	S	S	1,400	S
Physical scientists	6,800	4,200	S	S	1,000	S
Psychologists	9,600	S	S	s	s	6,900
Social and related scientists	6,100	1,800	S	s	2,600	S
Engineers	33,500	20,400	3,800	5,700	1,100	2,500
Managers and related occupations	8,600	S	S	6,600	s	S
Health and related occupations	2,500	S	S	s	s	1,900
Educators other than S&E postsecondary	8,400	S	S	s	7,700	S
Social services and related occupations Technicians including computer	5,800	S	S	S	s	4,200
programmers	5,400	1,300	3,400	s	s	S
Sales and marketing occupations		S	S	2,400	S	S
Other occupations	11,400	1,000	S	5,300	s	3,900

¹Science and engineering categories include postsecondary educators. For more details see technical notes.

NOTES: Details may not add to totals because of rounding.

Primary work activity is defined as activity in which respondent worked most hours on job in typical work week.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-15. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients whose work is supported by Federal Government, and agency giving support, by major field of degree: April 1997

		Number whose				Agency su	pporting w	ork	-		
Major field of 1995-96 S&E bachelor's degree	Total employed	work is supported by Federal Govern- ment	Depart- ment of Defense	Depart- ment of Education	Depart- ment of Energy	EPA	ннѕ	NASA	NIH	NSF	Other
All science and engineering fields	605,900	74,700	17,300	11,400	3,600	3,600	14,900	2,700	7,500	6,100	20,200
Major type											
Total science	500,200	58,600	8,500	10,800	2,000	2,700	14,600	1,500	7,200	4,600	16,600
Total engineering	105,700	16,200	8,700	s	1,600	S	s	1,300	S	1,500	3,700
Major field											
Computer and information sciences	39,000	3,900	2,500	s	S	s	s	s	S	S	s
Life and related sciences, total	105,800	12,900	s	s	s	s	2,200	·s	4,200	S	3,200
Mathematical and related sciences	24,600	2,400	s	s	s	s	s	s	s	S	s
Physical and related sciences, total	30,700	5,500	1,100	s	s	s	s	s	s	1,600	1,000
Psychology	120,100	16,400	s	4,500	s	s	7,300	s	s	S	3,800
Social and related sciences, total	180,100	17,500	s	3,700	s	s	4,700	s	s	S	7,700
Engineering, total	105,700	16,200	8,700	s	1,600	S	s	1,300	s	1,500	3,700

KEY:

S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability

EPA = Environmental Protection Agency

HHS = Department of Health and Human Services

NASA = National Aeronautics and Space Administration

NIH = National Institutes of Health

NSF = National Science Foundation

NOTES: Details may not add to totals because of rounding.

Respondent's work may be supported by more than one federal agency. Details may not add to totals because of rounding. These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-16. Number of employed 1995 and 1996 science and engineering master's degree recipients whose work is supported by Federal Government, and agency giving support, by major field of degree: April 1997

		F	Agency supporting work									
		Number				Agency s	upporting	work				
Major field of 1995-96 S&E master's degree	Total employed	whose work is supported by Federal Govern- ment	Depart- ment of Defense	Depart- ment of Education	Depart- ment of Energy	EPA	HHS	NASA	NIH	NSF	Other	
All science and engineering fields	135,800	26,200	7,400	2,800	2,400	1,400	2,800	1,600	2,200	3,100	6,200	
Total science Total engineering Major field	91,600 44,200	17,700 8,600	2,900 4,500	2,600 S	1,200 1,200	S	2,600 S	S 700	2,100 S	2,300 S	5,000 1,200	
Computer and information sciences Life and related sciences, total Mathematical and related sciences. Physical and related sciences, total Psychology Social and related sciences, total	12,300 7,100 8,400	2,300 3,600 S 2,300 4,700 4,000	1,100 S S S S	0000000	0000000	000000	S S S 1,400	00000000	000000	S S S 1,000 S S	\$ 1,100 \$ \$ \$ \$ \$ \$	
Engineering, total	44,200	8,600	4,500	s	1,200	S	S	700	S	S	1,200	

KEY:

S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability

EPA = Environmental Protection Agency

HHS = Department of Health and Human Services

NASA = National Aeronautics and Space Administration

NIH = National Institutes of Health

NSF = National Science Foundation

NOTES: Details may not add to totals because of rounding.

Respondent's work may be supported by more than one federal agency.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-17. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by occupation and work-related training: April 1997

			Work-relate	d training1	
Occupation	Total employed	Management training	Training in occupational field	General professional training	Other training
All employed science and	_				
engineering graduates	605,900	94,700	331,400	87,000	35,200
Occupation type					
Total scientists	112,700	11,900	62,500	12,900	5,200
Total engineers		14,500	45,800	15,400	5,000
Total other occupations	•	68,300	223,100	58,700	25,000
Occupation ²					
Computer and information scientists	49,900	6,700	32,700	7,200	1,700
Life and related scientists	19,400	S	7,900	S	s
Mathematical and related scientists	4,100	S	1,600	S	S
Physical scientists	17,200	1,100	7,900	1,800	1,300
Psychologists	11,500	S	6,800	S	S
Social and related scientists	10,600	S	5,600	S	s
Engineers	74,500	14,500	45,800	15,400	5,000
Managers and related occupations	39,800	14,100	24,900	9,400	s
Health and related occupations		3,100	14,400	2,200	S
Educators other than S&E					
postsecondary	50,200	5,300	31,400	6,700	2,700
Social services and related occupation	34,400	7,300	26,700	6,600	4,300
Technicians including computer	32,600	2,300	15,800	3,300	1,900
programmers		13,800	37,700	13,500	2,900
Sales and marketing occupations Other occupations		22,100	72,000	16,900	9,800
Other occupations	170,100	22,100	12,000	10,500	

¹ Respondents may report two or more types of worker-related training.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



² Science and engineering categories include postsecondary educators. For more details see technical notes.

Table D-18. Number of employed 1995 and 1996 science and engineering master's degree recipients, by occupation and work-related training: April 1997

			Work-relat	ed training ¹	
Occupation	Total employed	Management training	Training in occupational field	General professional training	Other training
All employed science and					
engineering graduates	135,800	20,300	80,000	19,900	6,200
Occupation type					
Total scientists	56,300	5,600	32,500	6,100	2,100
Total engineers	33,500	5,600	20,300	6,700	1,800
Total other occupations	46,000	9,100	27,200	7,100	2,300
Occupation ²					
Computer and information scientists	23,800	3,200	14,600	3,200	S
Life and related scientists	6,600	s	3,400	S	S
Mathematical and related scientists	3,400	s	1,500	s	S
Physical scientists	6,800	s	2,900	S	S
Psychologists	9,600	S	7,500	S	S
Social and related scientists	6,100	s	2,500	S	S
Engineers		5,600	20,300	6,700	1,800
Managers and related occupations	8,600	3,000	5,300	1,800	S
Health and related occupations	2,500	s	1,600	S	S
Educators other than S&E	•		,		_
postsecondary	8,400	S	5,400	S	S
Social services and related occupation Technicians including computer	5,800	1,700	4,900	S	s
programmers	5,400	s	2,400	s	s
Sales and marketing occupations		S	2,300	s	s
Other occupations	•	1,900	5,400	1,700	s

¹ Respondents my report two or more types of work-related training.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



² Science and engineering categories include postsecondary educators. For more details see technical notes.

Table D-19. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by sector of employment and work-related training: April 1997

		Work-related training ¹							
Sector of employment	Total employed	Management training	Training in occupational field	General professional training	Other training				
Total	605,900	94,700	331,400	87,000	35,200				
Private industry and business (non-educational)									
Private, for-profit company ² Nonprofit organization Self-employed	√ 39,000	61,700 5,600 S	196,300 26,700 4,600	55,000 5,100 S	18,100 4,400 S				
Educational institution									
4-year college and university ³ Other educational ⁴		5,800 6,000	29,200 34,700	6,600 6,900	3,100 3,800				
Government									
Federal GovernmentState or local government	21,600 37,300	6,500 7,800	13,500 26,400	5,000 7,300	1,600 4,200				

¹ Respondents may report two or more types of work-related training.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



² Persons reporting they were self-employed, but in an incorporated business, are classified as "private, for-profit."

³ Includes university-affiliated medical schools or research organizations.

⁴ Includes elementary, middle, secondary, and less than 4-year colleges or other educational institutions.

Table D-20. Number of employed 1995 and 1996 science and engineering master's degree recipients, by sector of employment and work-related training: April 1997

			Work-relate	d training ¹	
Sector of employment	Total employed	Management training	Training in occupational field	General professional training	Other training
Total	135,800	20,300	80,000	19,900	6,200
Private industry and business (non-educational)					
Private, for-profit company ²	69,500	12,100	42,400	12,500	3,000
Nonprofit organization		1,700	6,200	1,400	S
Self-employed	2,100	S	1,300	S	s
Educational institution					
4-year college and university ³	28,100	1,000	9,600	1,700	1,000
Other educational ⁴	12,300	1,600	9,200	1,500	s
Government		i			
Federal Government	8,400	2,100	5,900	1,400	s
State or local government		1,500	5,400	1,100	S

¹ Respondents may report two or more types of work-related training.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



² Persons reporting they were self-employed, but in an incorporated business, are classified as "private, for-profit."

³ Includes university-affiliated medical schools or research organizations.

⁴ Includes elementary, middle, secondary, and less than 4-year colleges or other educational institutions.

Table D-21. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by occupation and job satisfaction: April 1997

			Job satisfaction	tion		
Occupation	Total employed	Very satisfied	Somewhat satisfied	Very or somewhat dissatisfied		
All ampleyed esigned and						
All employed science and engineering graduates	605,900	240,800	255,800	109,300		
onginoomig graduated	,	,	•	,		
Occupation type		:	i			
Total scientists	112,700	56,300	43,200	13,100		
Total engineers	74,500	35,400	30,500	8,600		
Total other occupations	418,700	149,100	182,100	87,500		
Occupation ¹						
Computer and information scientists	49,900	25,600	18,100	6,200		
Life and related scientists	19,400	10,000	6,700	2,600		
Mathematical and related scientists	4,100	1,700	2,000	s		
Physical scientists	17,200	8,400	7,400	1,400		
Psychologists	11,500	5,100	4,700	s		
Social and related scientists	10,600	5,400	4,300	s		
Engineers	74,500	35,400	30,500	8,600		
Managers and related occupations	39,800	16,400	17,200	6,300		
Health and related occupations	25,000	8,300	12,000	4,700		
Educators other than S&E		ļ				
postsecondary	50,200	22,800	21,100	6,400		
Social services and related occupations	34,400	11,500	16,200	6,700		
Technicians including computer						
programmers	32,600	11,800	14,500	6,300		
Sales and marketing occupations		24,300	27,500	14,600		
Other occupations	170,100	53,900	73,700	42,500		

¹ Science and engineering categories include postsecondary educators. For more details see technical notes.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



Table D-22. Number of employed 1995 and 1996 science and engineering master's degree recipients, by occupation and job satisfaction: April 1997

			lob satisfaction		
Occupation	Total employed	Very satisfied	Somewhat satisfied	Very or somewhat dissatisfied	
All employed science and					
engineering graduates	135,800	61,800	55,900	18,100	
Occupation type	į				
Total scientists	56,300	27,100	23,100	6,200	
Total engineers	33,500	16,300	13,500	3,700	
Total other occupations	46,000	18,400	19,400	8,200	
Occupation ¹			:		
Computer and information scientists	23,800	10,800	10,600	2.400	
Life and related scientists	6,600	3,300	2,200	1,100	
Mathematical and related scientists	3,400	1,800	1,500	S	
Physical scientists	6,800	3,300	2,900	S	
Psychologists	9,600	4,700	3,800	S.	
Social and related scientists	6,100	3,200	2,100	s	
Engineers	33,500	16,300	13,500	3,700	
Managers and related occupations	8,600	3,800	3,600	1,200	
Health and related occupations	2,500	1,200	s	S	
Educators other than S&E		·			
postsecondary	8,400	4,100	2,800	1,500	
Social services and related occupations Technicians including computer	5,800	2,400	2,500	S	
programmers	5,400	2,100	2,600	s	
Sales and marketing occupations	3,900	s	1,900	S	
Other occupations	11,400	3,800	4,900	2,700	

¹ Science and engineering categories include postsecondary educators. For more details see technical notes.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



过五

Table E-1. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by sector of employment and occupation: April 1997

		Sector of employment								
			ndustry and bu on-educationa		Educationa	al institution	Gove	Government		
Occupation	Total employed	Private, for-profit company ¹	Nonprofit organization	Self- employed	4-year college and university ²	Other educational ³	Federal Government	State or local government		
All employed science and engineering										
graduates	605,900	367,200	39,000	12,600	72,900	55,400	21,600	37,300		
Occupation type					i					
Total scientists	112,700	61,500	5,300	s	35,500	1,700	3,800	3,500		
Total engineers	74,500	60,900	s	s	8,100	j s	2,800	2,000		
Total other occupations	418,700	244,800	33,200	11,300	29,300	53,400	15,000	31,700		
Occupation ⁴										
Computer and information scientists	49,900	42,000	s	s	3,400	s	1,900	s		
Life and related scientists	19,400	6,300	S	S	11,000	· s	s	S		
Mathematical and related scientists	4,100	s	S	s	2,700	s	l s	S		
Physical scientists	17,200	7,800	S	S	8,200	s	s	S		
Psychologists	11,500	s	3,300	s	5,100	s	s	S		
Social and related scientists	10,600	2,400	s	s	5,200	s	s	s		
Engineers	74,500	60,900	s	S	8,100	s	2,800	2,000		
Managers and related occupations		31,700	s	s	s	s	1,100	1,500		
Health and related occupations	25,000	12,100	4,100	s	3,700	s	l s	S		
Educators other than S&E							•			
postsecondary	50,200	2,700	s	s	3,800	40,200	s	s		
Social services and related										
occupations	34,400	5,400	12,800	s	2,400	2,600	s	10,500		
Technicians including computer										
programmers	32,600	25,600	s	s	3,500	s	s	S		
Sales and marketing occupations	66,400	60,000	s	2,300	s	s	s	S		
Other occupations	170,100	107,300	11,000	7,000	13,300	7,300	10,300	14,000		

Persons reporting they were self-employed, but in an incorporated business are classified as "private, for-profit."

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.

SOURCE: National Science Foundation/Division of Science Resources Studies, National Survey of Recent College Graduates, 1997



² Includes university-affiliated medical schools or research organizations.

³ Includes elementary, middle, secondary, and less than 4-year colleges or other educational institutions.

⁴ Science and engineering categories include postsecondary educators. For more details see technical notes.

Table E-2. Number of employed 1995 and 1996 science and engineering master's degree recipients, by sector of employment and occupation: April 1997

				S	ector of employ	/ment_			
			ndustry and b on-educationa		Education	al institution	Gove	Government	
Occupation	Total employed	Private, for-profit company ¹	Nonprofit organization	Self- employed	4-year college and university ²	Other educational ³	Federal Government	State or local government	
All employed science and engineering									
graduates	135,800	69,500	8,400	2,100	28,100	12,300	8,400	7,000	
Occupation type									
Total scientists	56,300	26,800	2,700	s	17,700	3,400	2,800	2,200	
Total engineers	33,500	23,500	s	S	5,200	s	2,500	1,700	
Total other occupations	46,000	19,100	5,300	1,300	5,200	8,800	3,100	3,100	
Occupation ⁴		: :					:		
Computer and information									
scientists	23,800	19,700	s	s	2,500	s	l s	s	
Life and related scientists	6,600	2,000	s	S	3,500	s	s	s	
Mathematical and related scientists	3,400	S	S	s	2,000	s	s	s	
Physical scientists	6,800	2,400	s	s	3,400	s	s	s	
Psychologists	9,600	1,600	1,900	S	2,000	2,600	s	s	
Social and related scientists	6,100	s	s	s	4,300	s	s	s	
Engineers	33,500	23,500	S	S	5,200	S	2,500	1,700	
Managers and related occupations	8,600	4,800	S	S	S	S	1,200	s	
Health and related occupations	2,500	S	s	S	S	S	S	s	
Educators other than S&E									
postsecondary	8,400	S	s	S	1,100	6,100	s	s	
Social services and related									
occupations	5,800	S	2,100	S	S	1,600	s	1,200	
Technicians including computer						,		,	
programmers	5,400	3,600	s	S	s	S	s	s	
Sales and marketing occupations	3,900	3,200	s	s	s	S	s	s	
Other occupations	11,400	5,700	s	S	1,500	s	1,500	s	

Persons reporting they were self-employed, but in an incorporated business are classified as "private, for-profit."

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



² Includes university-affiliated medical schools or research organizations.

³ Includes elementary, middle, secondary, and less than 4-year colleges or other educational institutions.

⁴ Science and engineering categories include postsecondary educators. For more details see technical notes.

Table E-3. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by sector of employment and major field of degree: April 1997

				Se	ctor of employ	/ment		
		Private inc	lustry and busi educational)	ness (non-	Educationa	al institution	Gover	nment
	Takal	Private,	,	Self-	4-year	Other	Foderal	State or
Major field of 1995-96 S&E bachelor's degree	Total employed	for-profit	Nonprofit organization	employed	college and	educational ³	Federal Government	local
	employed	company ¹	Organization	employed	university ²	educational	GOVERNINENT	government
All science and engineering fields	605,900	367,200	39,000	12,600	72,900	55,400	21,600	37,300
Major type								
Total science	500,200	284,000	38,000	12,000	62,900	53,800	14,900	34,600
Total engineering	105,700	83,100	S	S	10,000	1,600	6,700	2,700
Major field								
Computer and information sciences	39,000	31,900	S	s	2,400	S	s	s
Life and related sciences, total	105,800	60,000	5,200	3,400	18,600	11,300	3,200	4,200
Agricultural and food sciences	13,100	8,000	s	s	s	S	s	s
Biological sciences	83,900	46,400	4,100	S	16,600	9,700	2,500	2,800
Environmental life sciences including								
forestry sciences	8,800	5,600	s	s	S	S	s	s
Mathematical and related sciences	24,600	11,500	s	s	3,700	7,500	s	s
Physical and related sciences, total	30,700	16,100	900	s	8,800	2,000	1,800	900
Chemistry, except biochemistry	16,000	8,900	S	S	4,700	S	s	s
Earth sciences, geology, and								
oceanography	8,300	4,500	S	S	1,700	800	700	S
Physics and astronomy	6,000	2,600	S	S	2,500	S	S	S
Other physical sciences	s	s	S	S	S	S	S	S
Psychology	120,100	58,000	16,400	s	13,400	16,800	s	11,500
Social and related sciences, total	180,100	106,500	13,800	5,300	16,000	15,800	6,300	16,500
Economics	30,700	24,500	s	S	s	S	s	S
Political science and related sciences	59,700	39,200	4,100	s	5,000	2,500	2,500	5,000
Sociology and anthropology	55,600	26,600	5,600	S	6,100	6,300	S	7,600
Other social sciences	34,200	16,300	2,800	S	3,200	5,800	S	3,400
Engineering, total		83,100	s	s	10,000	1,600	6,700	2,700
Aerospace and related engineering	2,800	1,400	s	S	500	S	700	S
Chemical engineering		8,500	s	S	1,400	S	S	S
Civil and architectural engineering	18,800	14,200	s	S	S	S	S	2,100
Electrical, electronic, computer and								
communications engineering	1	24,000	S	S	2,800	S	2,200	S
Industrial engineering		4,800	S	S	S	S	S	S
Mechanical engineering	1	21,900	S	S	2,300	S	S	S
Other engineering	11,500	8,300	<u> </u>	S	1,500	S	900	S

¹ Persons reporting they were self-employed, but in an incorporated business are classified as "private, for-profit."

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



² Includes university-affiliated medical schools or research organizations.

³ Includes elementary, middle, secondary, and less than 4-year colleges or other educational institutions.

Table E-4. Number of employed 1995 and 1996 science and engineering master's degree recipients, by sector of employment and major field of degree: April 1997

employment and major neid of degre		Sector of employment								
			ustry and busineducational)	ness (non-	Educationa	al institution	Gove	rnment		
	Total	Private, for-	Nonprofit	Self-	4-year	Other	Federal	State or local		
Major field of 1995-96 S&E master's degree	employed	profit company ¹	organization		college and university ²	educational ³	Government	government		
All science and engineering fields	135,800	69,500	8,400	2,100	28,100	12,300	8,400	7,000		
Major type										
Total science	91,600	38,100	7,800	1,700	22,100	12,200	4,600	5,100		
Total engineering	44,200	31,400	s	s	6,000	s	3,900	1,900		
Major field										
Computer and information sciences	17,700	14,300	s	s	2,000	s	s	s		
Life and related sciences, total	12,300	4,600	s	s	4,500	1,400	s	s		
Agricultural and food sciences	2,300	s	S	s	s	s	s	s		
Biological sciences	7,800	2,500	s	s	3,100	1,200	s	s		
Environmental life sciences including										
forestry sciences	2,200	1,300	S	s	s	s	s	S		
Mathematical and related sciences	7,100	3,000	s	S	2,000	1,100	s	s		
Physical and related sciences, total	8,400	3,300	s	s	3,600	700	s	s		
Chemistry, except biochemistry	3,200	1,400	s	s	1,400	S	s	S		
Earth sciences, geology, and										
oceanography		1,100	S	S	S	S	S	S		
Physics and astronomy		800	S	S	1,600	S	S	S		
Other physical sciences	s	s	S	S	S	S	s	S		
Psychology	23,500	6,400	4,500	s	3,200	6,000	s	2,300		
Social and related sciences, total	22,700	6,500	2,500	s	6,900	2,600	2,100	1,600		
Economics	3,700	1,300	S	S	1,500	S	s	S		
Political science and related sciences		2,600	S	S	1,500	S	1,200	s		
Sociology and anthropology	3,700	s	S	S	1,700	S	s	s		
Other social sciences	8,200	2,100	S	S	2,100	1,400	S	s		
Engineering, total		31,400	s	s	6,000	s	3,900	1,900		
Aerospace and related engineering	1,400	600	S	S	S	S	400	S		
Chemical engineering	1,700	1,100	S	S	600	S	S	S		
Civil and architectural engineering	6,300	4,000	S	S	S	S	S	1,200		
Electrical, electronic, computer and	Ī		į							
communications engineering	15,300	11,700	S	S	2,000	s	1,100	s		
Industrial engineering		2,300	S	S	S	s	S	s		
Mechanical engineering	6,700	4,900	S	S	1,000	S	S	s		
Other engineering	9,700	6,900	S	S	s	S	s	s		

¹ Persons reporting they were self-employed, but in an incorporated business are classified as "private, for-profit."

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



² Includes 4-year colleges and universities, and university-affiliated medical schools or research organizations.

³ Includes elementary, middle, secondary, or 2-year colleges or other educational institutions.

Table E-5. Number of employed 1995 and 1996 science and engineering bachelor's degree recipients, by sector of employment and employment benefits: April 1997

	=		Employmen	t benefits	
Sector of employment	Total employed	Health insurance at least partially paid by employer	Pension or retirement plan to which employer contributes	Profit-sharing plan	Paid vacation, sick, or personal days
Total	605,900	455,400	359,800	189,800	452,100
Private industry and business (non-educational)					
Private, for-profit company ¹ Nonprofit organization Self-employed	39,000	301,600 30,100 S	240,800 21,700 S	164,300 6,100 S	303,900 32,000 S
Educational institution					
4-year college or university ² Other educational ³	72,900 55,400	37,300 36,600	20,000 32,000	4,400 5,800	28,700 36,600
Government					
Federal Government	21,600	19,900	16,600	2,400	20,000
State or local government	37,300	30,100	28,800	6,800	30,900

¹ Persons reporting they were self-employed, but in an incorporated business, are classified as "private, for-profit."

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



² Includes university-affiliated medical schools or research organizations.

³ Includes elementary, middle, secondary, and less than 4-year colleges or other educational institutions.

Table E-6. Number of employed 1995 and 1996 science and engineering master's degree recipients, by sector of employment and employment benefits: April 1997

·		Employment benefits				
Sector of employment	Total employed	Health insurance at least partially paid by employer	Pension or retirement plan to which employer contributes	Profit-sharing plan	Paid vacation, sick, or personal days	
Total	135,800	112,900	89,400	41,300	107,900	
Private industry and business (non-educational)						
Private, for profit company ¹ Nonprofit organizations Self-employed	69,500 8,400 2,100	63,300 6,600 S	53,000 5,100 S	37,100 S S	63,800 6,600 S	
Educational institution						
4-year college or university ²	28,100 12,300	18,100 10,700	8,500 9,500	S 1,200	12,200 11,000	
Government .						
Federal Government	8,400	8,300	7,700	S	8,300	
State or local government	7,000	6,000	5,600	S	6,100	

¹ Persons reporting they were self-employed, but in an incorporated business, are classified as "private, for-profit,"

NOTES: Details may not add to totals because of rounding.

These estimates on recent college graduates are obtained from a sample survey of individuals whose most recent bachelor's or master's degree is in a science or engineering field and may differ from degree counts presented in other SRS publications.



² Includes university-affiliated medical schools or research organizations.

³ Includes elementary, middle, secondary, and less than 4-year colleges or other educational institutions; excludes 4-year colleges and universities.

Table F-1. Median salary of full-time employed 1995 and 1996 bachelor's degree recipients, by sex, race/ethnicity, and major field of degree: April 1997

major neid of degree. April 1557		Se	ex		Race/ethnicity				
Major field of 1995-96 S&E bachelor's degree	Total	Male	Female	White, non- Hispanic	Black, non- Hispanic	Hispanic	Asian or Pacific Islander		
All science and engineering fields	\$27,500	\$30,500	\$24,000	\$27,000	\$25,700	\$25,000	\$33,000		
Major type									
Total science Total engineering	25,000 38,000	27,800 38,000	23,000 38,000	25,000 38,000	24,000 37,000	24,000 36,000	28,800 40,000		
Major field									
Computer and information sciences	38,000	38,000	36,400	38,000	35,000	34,000	40,000		
Life and related sciences, total	23,500 23,500 23,000	25,000 24,600 25,000	22,000 23,000 22,000	23,000 23,000 23,000	22,900 S 22,900	25,000 S 24,600	25,000 S 25,000		
Environmental life sciences including forestry sciences	25,000	26,000	23,000	25,000	s	S	S		
Mathematical and related sciences	28,000	30,000	28,000	28,000	30,000	S	S		
Physical and related sciences, total	27,000 27,000	29,000 30,000	23,000 23,000	27,000 27,000	23,000 22,800	22,000 S	27,700 S		
oceanography Physics and astronomy Other physical sciences	25,000 31,200 S	26,000 32,000 S	22,000 28,000 S	25,000 30,000 S	S S S	SSS	S S S		
Psychology	22,000	22,500	22,000	22,000	23,000	23,000	s		
Social and related sciences, total Economics Political science and related sciences Sociology and anthropology Other social sciences	25,000 30,000 26,000 21,500 25,000	27,000 31,000 27,500 24,000 25,000	24,000 29,000 25,000 21,000 25,000	25,000 30,000 26,000 21,000 25,000	23,000 25,000 24,000 21,500 24,000	25,000 28,000 27,000 22,000 25,100	28,000 39,300 26,000 S S		
Engineering, total Aerospace and related engineering Chemical engineering Civil and architectural engineering	38,000 35,500	38,000 35,000 42,000 32,000	38,000 37,000 41,000 33,000	38,000 36,000 42,000 33,000	37,000 S 40,900 31,000	36,000 35,000 37,500 30,000	40,000 S 43,000 S		
Electrical, electronic, computer and communications engineering Industrial engineering		40,000 37,000 38,500 36,000	40,000 37,200 39,000 35,000	40,000 37,000 39,000 35,000	35,200 37,500 38,000 S	41,000 35,000 36,000 35,000	42,000 S 40,000 40,000		

NOTE: Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

Data on American Indians/Alaskan Natives are included in the total, but are not shown separately due to insufficient sample size.



Table F-2. Median salary of full-time employed 1995 and 1996 master's degree recipients, by sex, race/ethnicity, and major field of degree: April 1997

		Sex		Race/ethnicity				
Major field of 1995-96 S&E master's degree	Total	Male	Female	White, non- Hispanic	Black, non- Hispanic	Hispanic	Asian or Pacific Islander	
All science and engineering fields	\$42,000	\$47,000	\$35,000	\$40,000	\$40,000	\$39,000	\$47,000	
Major type								
Total science	37,400	42,600	33,000	35,000	35,000	32,000	47,000	
Total engineering	1 '	49,000	47,500	50,000	48,000	46,000	47,500	
Major field								
Computer and information sciences	50,000	50,000	48,000	50,000	42,000	S	50,000	
Life and related sciences, total	32,000	32,000	32,300	32,000	s	s	s	
Agricultural and food sciences		s	S	31,000	S	S	s	
Biological sciences		31,000	32,000	31,000	S	S	S	
Environmental life sciences including				1				
forestry sciences	36,000	32,000	S	36,000	S	S	s	
Mathematical and related sciences	40,000	42,000	35,500	40,000	S	S	s	
Physical and related sciences, total	35,000	37,500	31,000	32,000	s	S	44,000	
Chemistry, except biochemistry	31,500	39,500	28,000	31,000	S	S	S	
Earth sciences, geology, and								
oceanography		34,000	S	31,500	S	S	S	
Physics and astronomy	41,000	40,000	S	37,500	S	S	S	
Other physical sciences	. s	S	S	s	S	S	S	
Psychology	30,000	29,000	30,000	30,000	30,000	32,000	s	
Social and related sciences, total	35,000	37,000	33,000	34,000	36,000	32,000	40,000	
Economics	40,000	42,000	S	s	S	S	s	
Political science and related sciences	35,000	37,000	34,000	35,000	S	S	S	
Sociology and anthropology	28,000	S	25,000	28,000	S	S	s	
Other social sciences	36,000	36,000	35,000	35,000	36,000	S	s	
Engineering, total	48,500	49,000	47,500	50,000	48,000	46,000	47,500	
Aerospace and related engineering		49,000	S	49,500	S	S	S	
Chemical engineering		49,000	49,000	52,000	s	S	S	
Civil and architectural engineering		42,000	35,000	40,000	S	S	37,500	
Electrical, electronic, computer and							,	
communications engineering		53,400	55,000	55,000	S	S	54,000	
Industrial engineering		49,000	S	50,000	S	S	s	
Mechanical engineering	47,000	46,000	s	47,200	S	S	46,000	
Other engineering	47,500	47,700	46,000	49,000	S	S	44,000	

NOTE: Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

Data on American Indians/Alaskan Natives are included in the total, but are not shown separately due to insufficient sample size.



Table F-3. Median salary of full-time employed 1995 and 1996 bachelor's degree recipients, by sex, race/ethnicity, and occupation: April 1997

		S	ex	Race/ethnicity				
Occupation	Total	Male	Female	White, non- Hispanic	Black, non- Hispanic	Hispanic	Asian or Pacific Islander	
All employed science and engineering graduates	\$27,500	\$30,500	\$24,000	\$27,000	\$25,700	\$25,000	\$33,000	
Occupation type				ļ				
Total scientists Total engineers Total other occupations	34,000 39,000 24,400	35,500 38,500 26,000	30,000 39,500 23,000	33,000 39,000 24,000	34,000 38,500 23,400	26,000 38,000 24,000	40,000 40,000 26,000	
Occupation ¹								
Computer and information scientists Life and related scientists Mathematical and related scientists Physical scientists Psychologists	40,000 24,000 33,000 28,600 19,900	40,000 25,000 S 29,000 S	38,000 23,000 S 28,000 20,000	39,000 24,000 S 28,500 S	35,000 S S S S	37,200 S S S S	43,500 S S S S	
Social and related scientists Engineers Managers and related occupations Health and related occupations ² Educators other than S&E postsecondary	25,000 39,000 32,000 22,500 22,500	24,000 38,500 35,000 25,000 24,000	25,000 39,500 29,500 22,000 22,000	23,000 39,000 32,000 22,000 22,000	\$ 38,500 28,000 24,000 25,000	\$ 38,000 30,000 \$ 24,000	\$ 40,000 35,000 \$ \$	
Social services and related occupations Technicians including computer programmers Sales and marketing occupations Other occupations		22,000 30,000 28,200 24,000	21,500 26,500 26,000 21,000	21,800 28,000 27,700 22,000	21,500 29,000 23,000 21,600	24,000 27,000 26,400 22,000	33,000 30,000 25,000	

¹ Science and engineering categories include postsecondary educators. For more details see technical notes.

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTE: Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

Data on American Indians/Alaskan Natives are included in the total, but are not shown separately due to insufficient sample size.



² Health-related majors are not included in sample. Salaries are not representative of those received by health-related occupations.

Table F-4. Median salary of full-time employed 1995 and 1996 master's degree recipients, by sex, race/ethnicity, and occupation: April 1997

	_	S	ex		Race/ethnicity		
Occupation	Total	Male	Female	White, non- Hispanic	Black, non- Hispanic	Hispanic	Asian or Pacific Islander
All employed science and engineering graduates	\$42,000	\$47,000	\$35,000	\$40,000	\$40,000	\$39,000	\$47,000
Occupation type							i
Total scientists Total engineers Total other occupations	48,000	47,000 48,300 40,000	35,000 47,000 32,000	39,000 49,000 35,000	40,000 48,000 35,000	34,000 46,000 37,000	48,000 47,000 40,000
Occupation ¹							
Computer and information scientistsLife and related scientists	50,000 31,000 35,000 35,000 32,000	50,000 32,000 S 35,000	48,000 30,000 S 32,000 32,000	50,000 32,000 S 35,000 32,000	48,000 S S S	54,000 S S S S	50,000 S S S S
Social and related scientists	35,900 48,000 50,000 35,500 32,000	\$ 48,300 52,000 \$ 34,000	\$ 47,000 43,000 \$ 29,000	35,000 49,000 50,000 36,000 31,000	\$ 48,000 47,000 \$ \$	\$ 46,000 50,000 \$ \$	\$ 47,000 \$ \$ \$
Social services and related occupations Technicians including computer programmers	28,500 38,000	27,000 39.000	29,000 38,000	27,000 35,500	S	s s	S 45,000
Sales and marketing occupations Other occupations	30,000 35,000	30,000 42,000	S 30,000	30,000 34,000	S 35,000	S S	\$ S S

¹ Science and engineering categories include postsecondary educators. For more details see technical notes.

NOTE: Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

Data on American Indians/Alaskan Natives are included in the total, but are not shown separately due to insufficient sample size.



² Health-related majors are not included in sample. Salaries are not representative of those received by health-related occupations.

Table F-5. Median salary of full-time employed 1995 and 1996 bachelor's degree recipients, by broad sector of employment and major field of degree: April 1997

		Broad sector of employment			
Mains field of 1005 OF COT backglasts dogge	Total	Private industry	Educational	Government	
Major field of 1995-95 S&E bachelor's degree		and business ¹	institution		
All science and engineering fields	\$27,500	\$30,000	\$22,000	\$25,000	
Major type					
Total science	25,000	26,000	22,000	24,700	
Total engineering	38,000	39,000	31,000	32,000	
Major field					
Computer and information sciences	38,000	38,000	S	31,500	
Life and related sciences, total	23,500	24,700	21,000	23,000	
Agricultural and food sciences	23,500	25,000	S	5	
Biological sciences	23,000	24,000	21,000	24,000	
Environmental life sciences including forestry sciences	25,000	25,000	S	(
Mathematical and related sciences	28,000	32,800	25,000	\$	
Physical and related sciences, total	27,000	27,600	25,000	27,00	
Chemistry, except biochemistry	27,000	27,000	S	. ;	
Earth sciences, geology, and oceanography	25,000	25,000	25,000	27,00	
Physics and astronomy	31,200	35,000	26,500	;	
Other physical sciences	S	S	S	;	
Psychology	22,000	22,000	22,000	24,50	
Social and related sciences, total	25,000	26,000	22,000	24,00	
Economics	30,000	30,000	Si	;	
Political science and related sciences	26,000	27,000	23,200	25,00	
Sociology and anthropology	21,500	22,500	18,500	22,00	
Other social sciences	25,000	25,000	25,000	23,00	
Engineering, total	38,000	39,000	31,000	32,00	
Aerospace and related engineering	35,500	37,500	S	27,00	
Chemical engineering	42,000	42,000	S		
Civil and architectural engineering	32,000	33,000	S	31,00	
Electrical, electronic, computer					
and communications engineering	40,000	41,000	S	35,00	
Industrial engineering	37,000	38,000	S		
Mechanical engineering	39,000	39,000	S	30,00	
Other engineering	35,700	37,000	S	28,00	

¹Nonprofit (excluding educational institutions) are included with private industry and business.

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTE: Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.

Data on American Indians/Alaskan Natives are included in the total but are not shown separately.



Table F-6. Median salary of full-time employed 1995 and 1996 master's degree recipients, by broad sector of employment and major field of degree: April 1997

	Broad sector of employment					
Major field of 1995-96 S&E master's degree	Total	Private industry and business ¹	Educational institution	Government		
All science and engineering fields	\$42,000	\$45,000	\$32,500	\$42,000		
Major type		!				
Total science	37,400	40,000	32,000	37,400		
Total engineering	48,500	49,000	40,000	48,000		
Major field						
Computer and information sciences	50,000	50,000	36,500	s		
Life and related sciences, total	32,000	35,000	30,000	32,000		
Agricultural and food sciences	31,000	s	s	S		
Biological sciences	32,000	34,000	30,000	S		
Environmental life sciences including forestry sciences	36,000	36,000	s	S		
Mathematical and related sciences	40,000	43,000	33,000	s		
Physical and related sciences, total	35,000	40,000	28,000	40,000		
Chemistry, except biochemistry	31,500	39,500	S	S		
Earth sciences, geology, and oceanography	32,000	32,000	S	S		
Physics and astronomy	41,000	45,400	s	S		
Other physical sciences	S	s	S	S		
Psychology	30,000	30,000	32,500	29,000		
Social and related sciences, total	35,000	35,000	32,000	40,000		
Economics	40,000	s	s	S		
Political science and related sciences	35,000	35,000	s	40,000		
Sociology and anthropology	28,000	s	s	S		
Other social sciences	36,000	35,000	34,000	42,000		
Engineering, total	48,500	49,000	40,000	48,000		
Aerospace and related engineering	48,000	45,000	S	S		
Chemical engineering	49,000	49,000	s	S		
Civil and architectural engineering	40,000	38,000	S	47,000		
Electrical, electronic, computer			!			
and communications engineering	54,000	55,000	· s	50,000		
Industrial engineering	49,000	50,000	s	S		
Mechanical engineering	47,000	47,000	s	S		
Other engineering	47,500	47,500	s	45,000		

¹Nonprofit (excluding educational institutions) are included with private industry and business.

NOTE: Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.



Table F-7. Median salary of full-time employed 1995 and 1996 bachelor's degree recipients, by broad sector of employment and occupation: April 1997

	,	Broad	ent	
Occupation	Total	Private industry and business ¹	Educational institutions	Government
All employed science and engineering graduates	\$27,500	\$30,000	\$22,000	\$25,000
Occupation type				
Total scientists	34,000	35,500	22,000	29,000
Total engineers	39,000	39,000	S	35,000
Total other occupations	24,400	25,000	22,000	24,700
Occupation ²				
Computer and information scientists	40,000	40,000	38,500	32,000
Life and related scientists	24,000	27,000	21,000	S
Mathematical and related scientists	33,000	S	S	S
Physical scientists	28,600	28,000	S	S
Psychologists	19,900	19,000	S	S
Social and related scientists	25,000	30,000	s	S
Engineers	39,000	39,000	s	35,000
Managers and related occupations	32,000	33,000	26,000	31,000
Health and related occupations ³	22,500	22,000	28,000	23,000
Educators other than S&E postsecondary	22,500	20,800	23,000	S
Social services and related occupations	21,600	20,000	23,000	22,000
Technicians including computer programmers	29,000	30,000	20,800	26,000
Sales and marketing occupations	27,000	27,000	S	S
Other occupations	22,000	22,000	19,900	25,000

Nonprofit (excluding educational institutions) are included with private industry and business.

KEY: S = Data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.

NOTE: Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.



² Science and engineering categories include postsecondary educators. For more details see technical notes.

³ Health-related majors are not included in sample. Salaries are not representative of those received by individuals in health-related occupations.

Table F-8. Median salary of full-time employed 1995 and 1996 master's degree recipients, by broad sector of employment and occupation: April 1997

		Broad sector of employment		
Occupation	Total	Private industry and business ¹	Educational institutions	Government
All employed science and engineering graduates	\$42,000	\$45,000	\$32,500	\$42,000
Occupation type				
Total scientists	43,000	47,000	32,000	36,000
Total engineers	48,000	48,000	47,000	48,000
Total other occupations	35,000	35,500	32,000	40,000
Occupation ²				
Computer and information scientists	50,000	50,000	37,000	54,000
Life and related scientists	31,000	35,000	28,000	S
Mathematical and related scientists	35,000	s	S	S
Physical scientists	35,000	36,000	S	S
Psychologists	32,000	30,000	33,000	S
Social and related scientists	35,900	s	s	s
Engineers	48,000	48,000	47,000	48,000
Managers and related occupations	50,000	50,000	S	50,000
Health and related occupations ³	35,500	s	s	S
Educators other than S&E postsecondary	32,000	S	34,000	S
Social services and related occupations	28,500	26,000	30,000	S
Technicians including computer programmers	38,000	40,000	s	S
Sales and marketing occupations	30,000	30,000	S	S
Other occupations	35,000	30,000	s	45,600

¹ Nonprofit (excluding educational institutions) are included with private industry and business.

NOTE: Salary data for the following groups are not included in the table: self-employed persons, full-time students, and people whose principal job was less than 35 hours per week. Salary data are for principal job only.



² Science and engineering categories include postsecondary educators. For more details see technical notes.

³ Health-related majors are not included in sample. Salaries are not representative of those received by individuals in health-related occupations.

SECTION C. SURVEY INSTRUMENT



OMB No.: 3145-0077

Approval Expires: 2/28/00



1997 National Survey of Recent College Graduates

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. All information you provide will be treated as confidential and used only for research or statistical purposes by the survey sponsors, their contractors, and collaborating researchers for the purpose of analyzing data and preparing scientific reports and articles. Any information publicly released (such as statistical summaries) will be in a form that does not personally identify you. Your response is voluntary and failure to provide some or all of the requested information will not in any way adversely affect you. Actual time to complete the questionnaire may vary depending on your circumstances. On the average, it will take about 25 minutes to complete the questionnaire. If you have any comments on the time required for this survey, please send them to Gail McHenry, Division of Administrative Services, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB number for this project is 3145-0077.

Conducted by:

Westat Rockville, MD

for the National Science Foundation Arlington, VA

INSTRUCTIONS

Thank you for taking the time to complete this important questionnaire. Directions for filling it out are provided with each question. Because not all questions will apply to everyone, you may be asked to skip certain questions.

In order to get comparable data, we will be asking you to refer to the week of April 15, 1997 (i.e., April 13-April 19, 1997) when answering most questions.

Follow all "SKIP" instructions <u>after</u> marking a box. If **no** "SKIP" instruction is provided, you should continue to the <u>next</u> question.

Either a pen or pencil may be used.

When answering questions that require marking a box, please use an [X].

- If you need to change an answer, please make sure that your old answer is either completely erased or clearly crossed out.
- You may notice that some question numbers are not consecutive. This was done to maintain consistency with previous survey cycles. Please answer questions in the order they are printed except when following a "SKIP" instruction.

Thanks again for your help. We really appreciate it.



	PART A - Education	A4X. Do you have a 2-year associate's degree?
		₁ ☐ Yes
A1.	In what year did you receive your high school diploma or high school equivalency certificate?	₂ □ No
	YEAR 19 Did not finish high school	A5. When you <u>first</u> entered college to begin working on a bachelor's degree, in what field of study did you want to major?
A2.	In what state or foreign country did you last attend high school?	MAJOR FIELD OF STUDY
	State: OR	S. 6.627
A3.	Foreign Country: Have you <u>ever</u> taken courses at a community	A6. Using the EDUCATION CODES (LIST A: pp. 18-19) choose the code that <u>best</u> describes your first intended major.
	college?	CODE NOTE: Education codes range from 601 to 995
	1	A7. Using a 4-point scale, what was your overall undergraduate grade point average (GPA)?
∀ A4.	(IF YES) For which of the following reasons have you taken courses at a community college?	IF YOU HAVE MORE THAN ONE BACHELOR'S DEGREE: Give your overall grade point average for your first bachelor's degree.
	Mark (X) Yes or No for each YES NO	Mark (X) ONLY one
	b. As part of a high school advanced placement (AP) program	1 3.75 - 4.00 GPA (Mostly A's) 2 3.25 - 3.74 GPA (About half A's/half B's)
	c. To prepare for college/increase chances of being accepted into college	3 ☐ 2.75 - 3.24 GPA (Mostly B's) 4 ☐ 2.25 - 2.74 GPA (About half B's/half C's) 5 ☐ 1.75 - 2.24 GPA (Mostly C's)
	d. To complete an associate's degree \dots 1 \square 2 \square	₆ ☐ 1.25 - 1.74 GPA (About half C's/half D's)
	e. To complete credits toward a bachelor's degree 1 🗋 2	 7 ☐ Less than 1.25 (Mostly D's or below) 8 ☐ Have not taken courses for which grades
	f. To gain <u>further</u> skills or knowledge in your academic or occupational field	were given
	g. To change your academic or occupational field	A10. How many college or university degrees do you have at the bachelor's level or higher?
	h. To increase opportunities for promotion, advancement, or higher salary	NUMBER
	i. For leisure or personal interest 1 🔲 2 🔲	A10a. In what month and year did you first enroll in a course offered by a college or other
	 j. For financial reasons (e.g., 4-year college too expensive, needed the money for other priorities)	postsecondary institution for which you received credit towards your first bachelor's degree? This may be at the institution that granted your degree, or at another institution.
	k. Other - Specify	Month Year



A11. Starting with your <u>most recent</u> college or university degree, please provide the following information for each degree you have at the bachelor's level or higher.

If more than 3 relevant degrees, complete the grid for your two most recent degrees and your first bachelor's degree.

MOST RECENT DEGREE	2ND MOST RECENT DEGREE	1ST BACHELOR'S DEGREE (If not previously reported)
From which college/university and department did you receive this degree?	From which college/university and department did you receive this degree?	From which college/university and department did you receive this degree?
(College/University Name)	(College/University Name)	(College/University Name)
(Department)	(Department)	(Department)
(City/Town)	(City/Town)	(City/Town)
(State/Foreign Country)	(State/Foreign Country)	(State/Foreign Country)
b. In what month and year was this degree awarded? Month Year 19	b. In what month and year was this degree awarded? Month Year 19	b. In what month and year was this degree awarded? Month Year 19
c. What type of degree did you receive?	c. What type of degree did you receive?	c. What type of degree did you receive?
Mark (X) ONLY one 1 □ Bachelor's 2 □ Master's (includes MBA) 3 □ Doctorate (e.g., Ph.D., D.S.C, D.Sc., Ed.D.) 4 □ Other professional degree (e.g., JD, LLB, ThD, MD, DDS, etc.) - Specify	Mark (X) ONLY one 1 ☐ Bachelor's 2 ☐ Master's (includes MBA) 3 ☐ Doctorate (e.g., Ph.D., D.S.C, D.Sc., Ed.D.) 4 ☐ Other professional degree (e.g., JD, LLB, ThD, MD, DDS, etc.) - Specify 91 ☐ Other - Specify	Mark (X) ONLY one 1 □ Bachelor's 2 □ Master's (includes MBA) 3 □ Doctorate (e.g., Ph.D., D.S.C, D.Sc., Ed.D.) 4 □ Other professional degree (e.g., JD, LLB, ThD, MD, DDS, etc.) - Specify 91 □ Other - Specify
d. Using the EDUCATION CODES (LIST A: pp. 18-19), select the relevant degree field code(s) and title(s).	d. Using the EDUCATION CODES (LIST A: pp. 18-19), select the relevant degree field code(s) and title(s).	d. Using the EDUCATION CODES (LIST A: pp. 18-19), select the relevant degree field code(s) and title(s).
MAJOR FIELD	MAJOR FIELD	MAJOR FIELD
CODE	CODE	CODE
SECOND MAJOR OR MINOR	SECOND MAJOR OR MINOR	SECOND MAJOR OR MINOR
CODE	CODE	CODE
e. From which of the following sources, if any, did you receive financial support for this degree?	e. From which of the following sources, if any, did you receive financial support for this degree?	e. From which of the following sources, if any, did you receive financial support for this degree?
Mark (X) all that apply	Mark (X) all that apply	Mark (X) all that apply
 Financial support from parents/spouse/ other relatives, not to be repaid 	□ Financial support from parents/spouse/ other relatives, not to be repaid	□ Financial support from parents/spouse/ other relatives, not to be repaid
 Loans from the school you attended, banks, federal or state government 	 ■ Loans from the school you attended, banks, federal or state government 	■ Loans from the school you attended, banks, federal or state government
Financial assistance from your employer	□ Financial assistance from your employer	□ Financial assistance from your employer
 Tuition waivers, fellowships, grants, scholarships 	d ☐ Tuition waivers, fellowships, grants, scholarships	d ☐ Tuition waivers, fellowships, grants, scholarships
■ □ Assistantships/Work Study	■ Assistantships/Work Study	■ □ Assistantships/Work Study
Earnings from employment	← □ Earnings from employment	- □ Earnings from employment
h Other - Specify	h Other - Specify	h Other - Specify



borro lender	wed f s, par	ons A12a and A12c, incl rom ALL sources, (e.g., ents, relatives, friends). [g dor forgiven. If your load	government, private		no	/hich of the following were reasons why you were ot enrolled or taking college courses during that me period?
pleas	e est	imate how much was late degrees and how mu	borrowed for your	/	Ma	ark (X) Yes or No for each YES NO
		ate degrees.	ICII Was Dolfowed for	1	1.	You had achieved your educational goals (at least temporarily)
A12a.	you amo	nking about <u>only</u> the unde completed <u>before May 19</u> ount you have borrowed <u>f</u> nce your <u>undergraduate</u> (997, what is the <u>total</u> rom any source to			You were waiting for the next school term to start
	\$.00	OR			expensive, needed the money for other priorities) 1 2
		NONE SKIP to A12c		4	4.	Had a job, needed to work 1 2
A12b.	(IF A	ANY) As of the week of Ap th of this undergraduate a to	oril 15, 1997 how amount did you still		5.	Had to stop due to family responsibilities (e.g., caring for children or other family members, had a baby)
	\$.00	OR		6.	Moved, could no longer take courses at the school you were attending $_1$ $_2$ $_2$
		NONE	•	7	7.	No longer certain of which field of study you wanted to pursue
A12c.	com	king about <u>only</u> the gradu pleted <u>before May 1997,</u> w unt you have borrowed <u>fr</u>	hat is the total	8	В.	Needed a break, tired of going to school
		ce your <u>graduate</u> degree		9	9.	Other - Specify
,	• 🗆 🗆	MARK (X) THIS BOX IF NO GRA AND THEN SKIP TO A13_1	ADUATE DEGREES,			1 2 0
	\$.00 NONE SKIP to A13_1	OR		<u>mo</u> co	Ihich two reasons marked in A14 represent your nost important reasons for not taking college ourses during that time period? Enter number of appropriate reason from A14 above.
A12d.	(IF AI mucl	NY) As of the week of Ap n of this graduate amount	ril 15, 1997 how did you still owe?		1.	. MOST important reason
	\$.00 NONE	OR		2.	SECOND MOST important reason (Enter "0" if only one reason selected
		A13_1 through A21a a				in A14.)
		urses you may have taken degree.	since completing your	A15.		ave you taken any college or university courses
A13_1		e you <u>completed</u> a degree I 15, 1997?	since the week of			ince the week of April 15, 1997? ☐ Yes □ S <i>KIP to A25, page 5</i>
_	1 🔲	Yes □ <i>SKIP to A21a, page</i> No	4			□ No
A13.	the v colle or u com degr		l you take any or enroll in a college ison, such as nedical, or law		Ma 1	F NO) How likely is it that you will one day take dditional college or university courses? Ark (X) ONLY one
	1 LJ	Yes □ <i>SKIP to A18, page 4</i> No				☐ Somewhat likely → SKIP to A25, page 5 ☐ Very unlikely —



inancial support from parents/spouse/ ther relatives, not to be repaid oans from the school you attended, anks, federal or state government oans from parents or other relatives inancial assistance from your imployer	1 🛛 2 🔲
ther relatives, not to be repaid oans from the school you attended, anks, federal or state government oans from parents or other relatives inancial assistance from your employer	1 🛛 2 🔲
anks, federal or state government oans from parents or other relatives	1 🗋 2 🗖
inancial assistance from your mployer	
ruployer	1 🛘 2 🗎
uition waivers, fellowships, grants, or scholarships	
	1 🔲 2 🗍
Assistantships/Work Study	1 🛘 2 🗎
Earnings from employment	1 🛘 2 🗍
Other - Specify	1 🗆 2 🗀
r which of the following reasons were ing classes or enrolled during that tin	
To gain further education	
To change your academic or occupational field	
To gain <u>further</u> skills or knowledge n your academic or occupational field.	1 2 0
For licensure or certification	1 🛘 2 🗀
To increase opportunities for promotion, advancement, or higher salary	1 2 2
Required or expected by employer	1 🛮 2 🗎
For leisure or personal interest	1 🛘 2 🖵
Other - Specify	
	1 🗆 2 🗆
	ssistantships/Work Study arnings from employment ther - Specify which of the following reasons were ng classes or enrolled during that tim (X) Yes or No for each o gain further education efore beginning a career o prepare for graduate school o change your academic or ccupational field or gain further skills or knowledge or your academic or occupational field or licensure or certification or increase opportunities for promotion, dvancement, or higher salary dequired or expected by employer or leisure or personal interest

A22.	More specifically, <u>during</u> the week of April 15, 1997, were you either taking college or university	PART B - Employment Status			
	courses or enrolled for other reasons such as completing a master's, PhD, medical, or law degree? MARK "YES": If you were enrolled in school but on vacation that week. 1 Yes 2 No SKIP to A25	B1.	At any time during the three months following the completion of your most recent degree, did you have what you considered to be a "careerpath" job? For "most recent degree," please do not include any degrees awarded after April 1997. A "career-path" job is a job that will help you in your future career plans or a job in the field in which you want to make your career.		
∀ A23.	(IF YES) What college or university were you attending during the week of April 15, 1997? Please do not abbreviate the school name.		1		
	School Name: City/Town:	B1a.	At any time during that same three-month period, did you <u>accept</u> what you considered to be a "career-path" job?		
	State/Foreign Country:		- 1 □ Yes 2 □ No □ <i>SKIP to B3</i>		
A24.	Were you taking courses as Mark (X) ONLY one 1	B2.	(IF YES) When did you first start working for that employer? IN THE ANSWER CATEGORIES BELOW: For "most recent degree," please do not include any degrees awarded after April 1997. Mark (X) ONLY one		
A25.	Thinking ahead to the future, what is the highest degree you ever expect to complete? If your current highest degree is the highest degree you expect to complete, please answer for that degree. Mark (X) ONLY one 1	В3.	Before working on your most recent degree While working on your most recent degree After completing your most recent degree (IF NO) At any time during that same three-month period were you seeking a "career-path" job? Yes No		



	next several questions are about your employment is during the reference week of April 13-19, 1997.	B8. What kind of work were you doing on this last jobthat is, what was your occupation? Please be as specific as possible, including any area of
₩ B5.	Were you working for pay (or profit) during the week of April 15, 1997? Please include self-employment and any jobs from which you were temporarily absent, for example, for illness, vacation, or parental leave (even if leave was unpaid). STUDENTS: Count jobs required as part of a financial aid award, such as work study or assistantships. Do not count financial aid awards with no work requirement. 1 Yes SKIP to B10 2 No (IF NO) Did you look for work during the four weeks preceding April 15, 1997 (that is, anytime between March 19 and April 15, 1997)?	B9. Using the JOB CODES (LIST B: pp. 20-21), choose the code that best describes the work you were doing on this last job. CODE SKIP to Part C, page 12 NOTE: Job codes range from 010 to 500 B10. (IF WORKING DURING WEEK OF APRIL 15) Counting all jobs you held during the week of April 15, 1997, was your typical work week 35 hours or more per week?
B6.	No What were your reasons for not working during the week of April 15, 1997? Mark (X) Yes or No for each	Yes, worked 35 or more hours SKIP to shaded box, page 7 No, worked less than 35 hours per week
B7.	A. Retired 19	B10a. (IF LESS THAN 35 HOURS) During the week of April 15, 1997, did you want to work a full-time work week of 35 or more hours? 1
<u> </u>	LAST WORKED	1 2

job hel which	answer the next series of questions for your <u>principal</u> d during the week of April 15, 1997, that is, the job in you worked the most hours during the week of April 17. A second job, if held, will be covered later.	does that amplayor's main hysiness heet fit?
B12.	Which of the following categories best describes your employer during the week of April 15, 1997?	BUSINESS: Please answer for the type of business primarily performed at the location where you worked.
	IF EMPLOYER WAS A SCHOOL: Mark (X) the type of	Mark (X) ONLY one
	organizational charter (e.g., mark "state government" for state schools or "local government" for schools run by	Agriculture, forestry, or fishing
	the local school district. Most private schools are "private not-for-profit".).	₂ Biotechnology
	Mark (X) ONLY one	₃ ☐ Construction or mining
	↑ □ A PRIVATE FOR-PROFIT company, business or individual, paying you wages, salary or commissions	₄ ☐ Education
	commissions 2 A PRIVATE NOT-FOR-PROFIT, tax-exempt, or	₅ Finance, insurance or real estate services
	charitable organization	₅ ☐ Health services
	3 SELF-EMPLOYMENT in own NOT INCORPORATED business, professional practice, or farm	₁ Information technology or computer services
	SELF-EMPLOYMENT in own INCORPORATED	8 All other services (e.g., social, legal, business)
	business, professional practice, or farm	₃ ☐ Manufacturing
	5 ☐ Local GOVERNMENT (e.g., city, county)	10 ☐ Public administration/government
	₅ ☐ State GOVERNMENT	₁₁ ☐ Research - Specify ¬
	 U.S. military service, active duty, or Commissioned Corps (e.g., USPHS, NOAA) 	d
	в ☐ U.S. GOVERNMENT as a civilian employee	Transportation services, utilities or
	91 Other - Specify	communications
		13 Wholesale or retail trade
B13.	Was your principal employer an educational institution?	91 Other - Specify
Г	_₁ □ Yes	
	2 No SKIP to B15a	B15b. Counting all locations where this employer
B13å.	(IF EDUCATIONAL INSTITUTION) Was this educational institution	operated, how many people worked for your April 1997 employer? Your best estimate is fine.
	Mark (X) ONLY one	Mark (X) ONLY one
	↑ □ A preschool, elementary, or middle school or system	₁ ☐ Under 10 employees
	₂ ☐ A secondary school or system	₂ 10-24 employees
	3 ☐ A 2-year college, junior college, or technical institute	₃ ☐ 25-99 employees
	₄ ☐ A 4-year college or university,	₄ □ 100-499 employees
	other than a medical school	₅ ☐ 500-999 employees
	 A medical school (including university- affiliated hospital or medical center) 	6 ☐ 1,000-4,999 employees
	6 ☐ A university-affiliated research institute	₇ ☐ 5,000+ employees
5 .5	91 Something else - Specify	
B15a.	Thinking about your April 1997 employer's main business, (that is, what that employer makes or	

B15c.	Did your April 1997 employer come into being as a new business within the past 5 years?	B15e_1.	Did you answer "yes" to any of the categories in B15e?
	1 Yes	_,	☐ Yes
	2 No		□ No □ SKIP to B15h, page 9
B15d.	Who was your principal employer during the week of April 15, 1997?		
	IF MORE THAN ONE JOB: Record employer for whom you worked the most hours that week.	a	F YES) What were your reasons for having an Iternative or temporary work arrangement during the week of April 15, 1997?
	IF EMPLOYER HAD MORE THAN ONE LOCATION: Record location where you usually worked.	F	or this study, being self-employed is considered an Itemative working relationship.
	Employer Name:	Ma	ark (X) Yes or No for each YES NO
	City or Town:	1.	Schedule flexibility 1 2
	State/Foreign Country:	2.	Only type of work you could find $\ldots 1 \square 2 \square$
	ZIP Code:	3.	To gain experience that may lead to a permanent job
		4.	Better pay 1 🔲 2 🔲
alte	e next several questions ask about some emative or temporary working relationships that	5.	Family-related reasons (e.g., children, spouse's job moved)
pe	ople <u>may</u> have with their employers.		In school or some type of training
B15e.	Did any of the following apply to your relationship with your principal employer during the week of		program 1 2
	April 15, 1997?	7.	Enjoy being your own boss 1 🔲 2 🗆
	Mark (X) Yes or No for each YES NO	8.	Employer changed your status to temporary
	a. Self-employed working as an independent contractor, independent	9.	Other - Specify
	consultant, free lance worker		1 🗆 , 2 🗆
	or otherwise self-employed 1 2	1	
·	 b. Your principal employer contracted out your services to other organizations (not including temporary help or employment agencies)	B15g.	Which two factors in B15f represent your most important reasons for having an alternative or temporary working arrangement or being self-employed? Enter the number of the appropriate reason from B15f above.
	c. Working through a temporary help or employment agency		1. MOST important reason
	d. Working on an "as needed", "seasonal" or short term basis 1 2		2. SECOND MOST important
	e. Job sharing 1 🗆 2 🗆		reason (Enter "0" if only one reason selected in B15f.)
	f. Working from home for 50 percent or more of your work time		
	g. Some other alternative or temporary working arrangement - Specify		
	1 2		

B15h.		u could have any type of working arrangement wanted, would your first choice be	B17.	Using the JOB CODES (LIST B: pp. 20-21), choose the code that <u>best</u> describes the work you were doing on your principal job during the week of
	Mark	(X) ONLY one		April 15, 1997.
	1 🗆	A permanent job (either full time or part time), that is a job with no set end date		CODE NOTE: Job codes range from 010 to 500
	2	Being self-employed	B17_1	Did you record job code "141" (executive, manager, or administrator) in B17?
	з 🗌	Some other type of working arrangement - Specify 7		_ 1 ☐ Yes
				2 No SKIP to B19
B15i.	of Ap	cerning your principal job during the week pril 15, 1997, were any of the following benefits lable to you, even if you chose not to take n?	∀ B18a.	(IF YES) Did your duties on this job require the technical expertise of a bachelor's degree or higher in
		(X) Yes or No for each YES NO		Mark (X) Yes or No for each YES NO
		dealth insurance that was at least artially paid by your employer		a. Engineering, computer science, math, or the natural sciences ₁ □ ₂ □
		pension plan or a retirement plan which your employer contributed 1 🔲 2 🔲		b. The social sciences
	c. A	profit-sharing plan 1 🛘 2 🗀		c. Some other field (e.g., health or business) - Specify
	d. P	Paid vacation, sick or personal days 1 🔲 2 🗆		. 1 2
B16.	job h what Pleas any a	t kind of work were you doing on your principal neld during the week of April 15, 1997—that is, t was your occupation? se be as specific as possible, including area of specialization.	B19.	During what month and year did you start this job, (that is, your principal job held during the week of April 15, 1997)? Month Year
	EXAM	PLE: High school teacher - Math		JOB STARTED 19
			B20.	As of the week of April 15, 1997, were you licensed or certified in your occupation? Do not include academic degrees (e.g., BA, MA, PhD). 1 Yes 2 No



B21.	Thinking about the relationship between your work and your education, to what extent was your work on your principal job held during the week of April 15, 1997, related to your highest degree field? For "highest degree," please do not include any degrees awarded after April 1997.	B24. The next question is about your work activities on the principal job you held during the week of April 15, 1997. Which of the following work activities occupied 10 percent or more of your time during a typical work week on this job?
	Mark (X) ONLY one	Mark (X) Yes or No for each YES NO □ □
	Closely related SKIP to B24	1. Accounting, finance, contracts 1 🗆 2
	2 Gornewhat related —	Applied research - study directed toward gaining scientific knowledge
	3 ☐ Not related	to meet a recognized need 1 2 2 3. Basic research - study directed
¥ B22.	(IF NOT RELATED) Did any of these factors	toward gaining scientific knowledge primarily for its own sake
	influence your decision to work in an area OUTSIDE THAT DEGREE FIELD?	4. Computer applications, programming, systems development
	Mark (X) Yes or No for each YES NO	5. Development - using knowledge gained from research for the production of materials, devices 1 2 2
	 Pay or promotion opportunities 1	6. Design of equipment, processes, structures, models
	equipment, working environment) 1 2	7. Employee relations - including recruiting, personnel development,
	3. Job location	training 1 2
	4. Change in career or professional interests	8. Managing and supervising 1 2 9. Production, operations, maintenance
	5. Family-related reasons (e.g., children,	(e.g., truck driving, machine tooling, auto/machine repairing) 1 □ 2 □
	spouse's job moved)	10. Professional services (e.g., health care, counseling, financial services, legal services)
	7. Other reason - Specify	11. Sales, purchasing, marketing,
	1 2 2	customer service, public relations 1 \(\begin{array}{c} 2 \\ \end{array} \) 12. Quality or productivity management 1 \(\begin{array}{c} 2 \\ \end{array} \)
		13. Teaching
B23.	Which two factors in B22 represent your most important reasons for working in an area outside that degree field? Enter number of appropriate factor	1 0 2 0
	from B22 above.	B25. On which <u>two</u> activities in B24 did you work the <u>most</u> hours during a typical week on this job?
	1. MOST important reason	Enter number of appropriate activity from B24 above.
	SECOND MOST important reason (Enter "0" if only one factor selected in	1. Activity MOST hours
	B22.)	Activity SECOND MOST hours (Enter "0" if only one activity selected in B24.)

B26.	Did you supervise the work of others as part of your principal job held during the week of April 15, 1997?	B29WI	EEKS.	Was your salary based on a full year, that is, 52 weeks, or something less than 52 weeks?
	MARK "YES": If you assigned duties to workers and recommended or initiated personnel actions such as hiring, firing, or promoting.		1 🔲	52 weeks □ <i>SKIP to B30</i> Something else
	TEACHERS: Do <u>not</u> count students.		2 🗆	
_	1 Yes 2 No SKIP to B28	B29a.		ding paid vacation and paid sick leave, on many weeks per year was your salary based?
₩ B27.	(IF YES) How many people did you typically		NU	MBER OF WEEKS PER YEAR
	IF NONE: Enter "0." Number Supervised	B30.	your	ng the week of April 15, 1997, was any of work on this job supported by <u>contracts or s</u> from the U.S. government?
	a. Supervise directly?		FEDER	RAL EMPLOYEES: <i>Please answer "No."</i>
	b. Supervise through subordinate supervisors?			(X) ONLY one
D20	Paters deductions, what was your basis annual		- 1 🗆	
B28.	Before deductions, what was your basic <u>annual</u> salary on this job as of the week of April 15, 1997? (Do <u>not</u> include bonuses, overtime, or additional compensation for summertime teaching or research.)		2 🗔	No □ SKIP to B32a, page 12
	IF NOT SALARIED: Please estimate your earned income, excluding business expenses.	B31.		ES) Which Federal agencies or departments supporting your work during the week of
	Include tips as part of salary.			15, 1997?
	\$.00			(X) all that apply
	Basic Annual Salary/Earned Income			Agency for International Development (AID) Agriculture Department
B29.	During a typical week on this job, how many hours			Commerce Department
DZJ.	did you usually work?			Defense Department (DOD)
	NUMBER OF HOURS PER WEEK		5 🗌	Department of Education (include NCES, OERI, FIPSE, FIRST)
			6 🗆	Energy Department (DOE)
B29P/	AID. And, for how many hours during a typical week were you paid?		7 🗆	Environmental Protection Agency (EPA)
	NUMBER OF HOURS PER WEEK	ľ	8 🗌	Health and Human Services Department (EXCLUDING NIH)
	NOMBER OF FIGURE 1		9 🗌	Interior Department
			10 🗌	National Aeronautics and Space Administration (NASA)
			11 🗆	National Institutes of Health (NIH)
			12	National Science Foundation (NSF)
			13 🗌	Transportation Department (DOT)
			91 🗌	Other - Specify

B32a.	How would you rate your overall satisfaction with the job you held during the week of April 15, 1997		PART C - Other Work-Related Information
	Mark (X) ONLY one 1 □ Very satisfied 2 □ Somewhat satisfied 3 □ Somewhat dissatisfied	CZ.	professional society or association meetings or conferences? Please include regional, national, or international meetings.
B35.	 Very dissatisfied During the week of April 15, 1997, were you 		₂ □ No
	working for pay (or profit) at a second job (or business), including part-time, evening, or weekend work?	C3.	To how many national or international professional societies or associations do you currently belong?
	· 1 □ Yes · 2 □ No □ S <i>KIP to Part</i> C		Number OR NONE
♥ B36.	(IF YES) What kind of work were you doing on your second job during the week of April 15, 1997—that is, what was your occupation? Please be as specific as possible, including any area	C4.	During the past year, did you attend any <u>work-related</u> workshops, seminars, or other work-related training activities? <i>Do not include college courses</i> .
	of specialization. IF MORE THAN TWO JOBS THAT WEEK: Answer for the job at which you worked the second most hours.		Do <u>not</u> include professional meetings unless you attended a special training session conducted at a meeting or conference.
	EXAMPLE: High school teacher - Math		- ₁ □ Yes ₂ □ No □ S <i>KIP to Part D,</i> page 13
		C5.	(IF YES) During the past year, in which of the following areas did you attend work-related workshops, seminars, or other work-related training activities?
B37.	Using the JOB CODES (LIST B: pp. 20-21), choose the code that <u>best</u> describes the work you were		Mark (X) Yes or No for each YES NO
	doing on your second job during the week of April 15, 1997.		a. Management or supervisor training
	CODE NOTE: Job codes range from 010 to 500		b. Training in your occupational field
B39.	To what extent was your work on this second job related to your <u>highest</u> degree field? For "highest degree," please do not include any degrees awarded after April 1997.		c. General professional training (e.g., public speaking, business writing)
	Mark (X) ONLY one 1 ☐ Closely related		d. Other work-related training - Specify
	2 Somewhat related		1 2
<u>-</u>	3 Not related		



For which of the following reasons did you training activities during the past year?	ı attend	PART D - Background Information	
Mark (X) Yes or No for each YES	NO	D1. What is your birthdate?	
1. To facilitate a change in your occupational field □	2	Month Day Year	
2. To gain <u>further</u> skills or knowledge in your occupational field	2 🗆	19	
3. For licensure or certification ₁ □	2 🗌	D2. In what U.S. state, U.S. territory, or foreign country were you born?	
4. To increase opportunities for promotion, advancement or higher salary 1	2 🗆	State/Territory: OR Foreign Country:	
5. To learn skills or knowledge needed for a recently acquired position	2 🗆		
6. Required or expected by employer	2 🗆	D4DAD. What is the <u>highest</u> level of education <u>completed</u> by your <u>father or male guardian</u> ?	
7. Other - Specify 1 2 2 C7. Which of the reasons marked in C6 represents your most important reason for attending training activities? Enter number of appropriate reason from C6 above. MOST important reason		Mark (X) ONLY one 1 □ Less than high school diploma 2 □ High school diploma or equivalent 3 □ Some college, vocational, or trade school (including 2-year degrees) 4 □ Graduated from a 4-year college (Bachelor's degree) 5 □ At least some graduate or professional school D4MOM. What is the highest level of education completed by your mother or female guardian? Mark (X) ONLY one 1 □ Less than high school diploma 2 □ High school diploma or equivalent 3 □ Some college, vocational, or trade school (including 2-year degrees) 4 □ Graduated from a 4-year college (Bachelor's degree) 5 □ At least some graduate or professional school	
	training activities during the past year? Mark (X) Yes or No for each 1. To facilitate a change in your occupational field	training activities during the past year? Mark (X) Yes or No for each YES NO 1. To facilitate a change in your occupational field	

:::

D5.	Are you of Hispanic origin or descent? - 1 Yes 2 No SKIP to D7 Which of the following categories best describes your Hispanic descent? IF MORE THAN ONE CATEGORY APPLIES: Please select the one you consider the most important part of your background. Mark (X) ONLY one		During the week of April 15, 1997, were you Mark (X) ONLY one 1
D7.	Mexican, Mexican-American, Chicano Puerto Rican Cuban Some other Hispanic descent - Specify Are you	D9_2.	(IF NON-U.S. CITIZEN) During the week of April 15, 1997, did you have Mark (X) ONLY one A Permanent U.S. Resident Visa A Temporary U.S. Resident Visa No U.S. Visa - You were living outside the United States
D8.	Mark (X) ONLY one 1 White 2 Black or African American 3 Asian or Pacific Islander 4 American Indian or Alaskan Native (e.g., Eskimo, Aleut) 91 Other - Specify	D10.	(IF NON-U.S. CITIZEN) Of which country were you a citizen during the week of April 15, 1997? COUNTRY During the week of April 15, 1997, were you living in the United States or one of its territories, or were you living in another country? 1 United States or one of its territories 2 Another country
	₁	D13.	As of the week of April 15, 1997, were you Mark (X) ONLY one 1

	(IF MARRIED) During the week of April 15, 1997, was your spouse working for pay (or profit) at a full-time or part-time job?
_	- ₁ ☐ Yes, full-time
ΓL	_ ₂ ☐ Yes, part-time
\	3 ☐ No ☐ SKIP to D16
D15.	(IF YES) Did your spouse's duties on this job require the technical expertise of a bachelor's degree or higher in
	Mark (X) Yes or No for each YES NO
	a. Engineering, computer science, math or the natural sciences 1 2
	b. The social sciences
	c. Some other field (e.g., health or business) - Specify
D16.	During the week of April 15, 1997, did you have any children living with you as part of your family? Only count children who lived with you at least 50 percent of the time. 1 Yes 2 No SKIP to D18, page 16
\	
D17.	(IF YES) How many of these children living with you as part of your family were
D17.	
D17.	you as part of your family were
D17.	you as part of your family were IF NO CHILDREN IN A CATEGORY: Enter "0." Number of
D17.	you as part of your family were IF NO CHILDREN IN A CATEGORY: Enter "0." Number of Children
D17.	you as part of your family were IF NO CHILDREN IN A CATEGORY: Enter "0." Number of Children e. Under age 2
D17.	you as part of your family were IF NO CHILDREN IN A CATEGORY: Enter "0." Number of Children e. Under age 2
D17.	you as part of your family were IF NO CHILDREN IN A CATEGORY: Enter "0." Number of Children e. Under age 2

The next question is designed to help us better understand the career paths of individuals with different physical abilities. D18. What is the <u>usual</u> degree of difficulty you have with . . . MARK (X) ONE FOR EACH LINE None Slight Moderate Severe Unable to Do a. SEEING words or letters in ordinary newsprint (with glasses/contact lenses if you usually 1 2 з 🗌 4 b. HEARING what is normally said in conversation with another person (with hearing aid, if you 1 I 2 3 $_{\mathbf{A}}$ \square c. WALKING without human or mechanical assistance or using stairs \dots 1 2 з 🗌 4 d. LIFTING or carrying something as heavy as 10 pounds, such as a bag of groceries 1 2 з 🗌 4 D18_1. \Box MARK (X) THIS BOX IF YOU ANSWERED "NONE" TO ALL ACTIVITIES IN D18 AND SKIP TO D22 D19. What is the earliest age at which you first began experiencing any difficulties in any of these areas? OR D SINCE BIRTH AĠE D22. In case we need to clarify some of the information you have provided, please provide an address, telephone number(s), and any e-mail address (if applicable) where you can be reached. Number and Street/Apt. No. City/Town State Zip Code Plus 4 Country (If outside U.S.) **Telephone Numbers:** Area Code Number Daytime Number Evening E-mail Address(es):



D22a.	Does the name appearing on th	e back cover of this questionna	ire match your current name?			
	☐ Yes ☐ <i>SKIP to D21 below</i> - ☐ No					
	□ NO					
₩ D22b.	Please provide your current name.					
	First Name	Middle Name	Last Name			
D21.	the future. To help us contact y is likely to know where you can	ou, please provide the name, ac be reached. <u>Do not include sor</u> In this questionnaire, complete o	nge over time, we may be recontactind dress, and telephone number of some one who lives in your household. Confidentiality will be provided. This person	neone who		
	First Name	Middle Name	Last Name			
	Number and Street/Apt. No.	<u> </u>				
	City/Town	State	Zip Code Plus 4			
	Country (If outside U.S.)					
	Area Code I	Number -				

THANK YOU FOR COMPLETING THE QUESTIONNAIRE



LIST A: EDUCATION CODES

This list is ordered alphabetically. The titles in bold type are broad fields of study. To make sure you have found the BEST code, please review ALL broad categories before making your choice. If you cannot find the code that BEST describes your field of study, use the "OTHER" code under the most appropriate broad field in bold print. If none of the codes fit your field of study, use Code 995.

			٠.
	Agriculture Business and Production		Computer and Information Sciences
601	Agriculture, economics (also see 655 and 923)	671	
602	OTHER agricultural business and production	672	, ,
		673	
		674	•
	A minulannal Calanana	675	
	Agricultural Sciences	676	1 0
605	•		
606	Food sciences and technology (also see 638)	677	OTHER computer and information sciences
607	Plant sciences (also see 633)		
608	OTHER agricultural sciences		Conservation/Renewable Natural Resources
		680	Environmental science studies
		681	Forestry sciences
610	Architecture/Environmental Design	682	
0.0	_		
	(for architectural engineering, see 723)	600	Criminal Justice/Protective Services
		090	
			(also see 922)
620	Area/Ethnic Studies		·
			Education
		701	Administration
	Biological/Life Sciences	702	
624	· · ·	703	
631	Biochemistry and biophysics	704	
632		705	
633	· · · · · · · · · · · · · · · · · · ·	705 706	
	Cell and molecular biology		
635		707	•
636	Genetics, animal and plant	708	
637		709	
638	Nutritional sciences (also see 606)	710	
639	Pharmacology, human and animal (also see 788)	711	Special education .
640	Physiology, human and animal	712	Social science teacher education
641	Zoology, general	713	OTHER education
642	OTHER biological sciences		
•	o i i i i i i i i i i i i i i i i i i i		Engineering
		721	•
	D . M	721	
	Business Management/Administrative Services		
651	Accounting	723	
652	Actuarial science	724	
653	Business administration and management	725	
654	Business, general	726	
655	Business/managerial economics (also see 601 and 923)	727	Computer/systems engineering (also see 673)
656	Business marketing/marketing mgmt.	728	Electrical, electronics, communications engineering (also see 751)
657	Financial management	729	Engineering sciences, mechanics, physics
658	Marketing research	730	Environmental engineering
843	Operations research	731	General engineering
659	OTHER business management/admin. services	732	
039	OTHER business management/aumin. Services	733	
		734	
		735	<u> </u>
	Communications		
661	Communications, general	736	
662	Journalism	737	
663	OTHER communications	738	
	o i i i i i i i i i i i i i i i i i i i	739	
		740	Petroleum engineering
		741	OTHER engineering
			-



LIST A: EDUCATION CODES - Continued

Engineering-Related Technologies

- 751 Electrical and electronic technologies
- 752 Industrial production technologies
- 753 Mechanical engineering-related technologies
- 754 OTHER engineering-related technologies

Languages, Linguistics, Literature/Letters

- 760 English Language and Literature/Letters
- 771 Linguistics
- 772 OTHER foreign languages and literature

Health Professions and Related Sciences

- 781 Audiology and speech pathology
- 782 Health services administration
- 783 Health/medical assistants
- 784 Health/medical technologies
- 785 Medical preparatory programs (e.g., pre-dentistry, pre-medical, pre-veterinary)
- 786 Medicine (e.g., dentistry, optometry, osteopathic, podiatry, veterinary)
- 787 Nursing (4 years or longer program)
- 788 Pharmacy (also see 639)
- 789 Physical therapy and other rehabilitation/
- therapeutic services
- 790 Public health (including environmental health and epidemiology)
- 791 OTHER health/medical sciences
- 800 Home Economics
- 810 Law/Prelaw/Legal Studies
- 820 Liberal Arts/General Studies
- 830 Library Science

Mathematics

- 841 Applied (also see 843, 652)
- 842 Mathematics, general
- 843 Operations research
- 844 Statistics
- 845 OTHER mathematics
- 850 Parks, Recreation, Leisure, and Fitness Studies

Philosophy, Religion, and Theology

- 861 Philosophy of science
- 862 OTHER philosophy, religion, theology

Physical Sciences

- 871 Astronomy and astrophysics
- 872 Atmospheric sciences and meteorology
- 631 Biochemistry
- 873 Chemistry
- 874 Earth sciences
- 680 Environmental science studies
- 875 Geology
- 876 Geological sciences, other
- 877 Oceanography
- 878 Physics
- 879 OTHER physical sciences

Psychology

- 91 Clinical
- 892 Counseling
- 704 Educational
- 893 Experimental
- 894 General
- 895 Industrial/Organizational
- 896 Social
- 897 OTHER psychology

Public Affairs

- 901 Public administration
- 902 Public policy studies
- 903 OTHER public affairs
- 910 Social Work

Social Sciences and History

- 921 Anthropology and archeology
- 922 Criminology (also see 690)
- 923 Economics (also see 601 and 655)
- 924 Geography
- 925 History of science
- 926 History, other
- 927 International relations
- 928 Political science and government
- 929 Sociology
- 910 Social work
- 930 OTHER social sciences

Visual and Performing Arts

- 941 Dramatic arts
- 942 Fine arts, all fields
- 943 Music, all fields
- 944 OTHER visual and performing arts

995 OTHER FIELDS (Not Listed)



LIST B: JOB CODES LIST

This list is ordered ALPHABETICALLY. The titles in bold type are broad job categories. To make sure you have found the BEST code, please review ALL broad categories before making your choice. If you cannot find the code that BEST describes your job, use the "OTHER" code under the most appropriate broad category in bold print. If none of the codes fit your job, use Code 500.

010 Artists, Broadcasters, Editors, Entertainers, Public Relations Specialists, Writers

Biological/Life Scientists

- 021 Agricultural and food scientists
- 022 Biochemists and biophysicists
- 023 Biological scientists (e.g., botanists, ecologists, zoologists)
- 024 Forestry and conservation scientists
- 025 Medical scientists (excluding practitioners)
- 026 Technologists & technicians in the biological/life sciences
- 027 OTHER biological/life scientists

Clerical/Administrative Support

- 031 Accounting clerks, bookkeepers
- 032 Secretaries, receptionists, typists
- 033 OTHER administrative (e.g., record clerks, telephone operators)

040 Clergy & Other Religious Workers

Computer Occupations (Also see 173)

- ••• Computer engineers (See 087, 088 under Engineering)
- 051 Computer programmers (business, scientific, process control)
- 052 Computer system analysts
- 053 Computer scientists, except system analysts
- 054 Information systems scientists or analysts
- 055 OTHER computer, information science occupations
- Consultants (Select the code that comes closest to your usual area of consulting)
- 070 Counselors, Educational & Vocational (Also see 236)

Engineers, Architects, Surveyors

- 081 Architects
- Engineers (Also see 100-103)
 - 082 Aeronautical, aerospace, astronautical engineer
 - 083 Agricultural engineer
 - 084 Bioengineering & biomedical engineer
 - 085 Chemical engineer
 - 086 Civil, including architectural & sanitary engineer

- Engineers (continued)
 - 087 Computer engineer hardware
 - 088 Computer engineer software
 - 089 Electrical, electronic engineer
 - 090 Environmental engineer
 - 091 Industrial engineer
 - 092 Marine engineer or naval architect engineer
 - 093 Materials or metallurgical engineer
 - 094 Mechanical engineer
 - 095 Mining or geological engineer
 - 096 Nuclear engineer
 - 097 Petroleum engineer
 - 098 Sales engineer
 - 099 Other engineer
- **Engineering Technologists and Technicians**
 - 100 Electrical, electronic, industrial, mechanical
 - 101 Drafting occupations, including computer drafting
 - 102 Surveying and mapping
 - 103 OTHER engineering technologists and technicians
- 104 Surveyors

110 Farmers, Foresters & Fishermen

Health Occupations

- 111 Diagnosing/Treating Practitioners (e.g., dentists, optometrists, physicians, psychiatrists, podiatrists, surgeons, veterinarians)
- 112 Registered nurses, pharmacists, dieticians, therapists, physician assistants
- 236 Psychologists, including clinical
- 113 Health Technologists & Technicians (e.g., dental hygienists, health record technologist/technicians, licensed practical nurses, medical or laboratory technicians, radiologic technologists/technicians)
- 114 OTHER health occupations
- 120 Lawyers, Judges
- 130 Librarians, Archivists, Curators

Managers, Executives, Administrators

- (Also see 151-153) 141 Top and mid-level managers, executives, administrators
- (people who manage other managers)
- All other managers, including the self-employed Select the code that comes closest to the field you manage



LIST B: JOB CODES LIST - Continued

Management-Related Occupations (Also see 141)

- 151 Accountants, auditors, and other financial specialists
- 152 Personnel, training, and labor relations specialists
- 153 OTHER management related occupations

Mathematical Scientists

- 171 Actuaries
- 172 Mathematicians
- 173 Operations research analysts, modelling
- 174 Statisticians
- 175 Technologists and technicians in the mathematical sciences
- 176 OTHER mathematical scientists

Physical Scientists

- 191 Astronomers
- 192 Atmospheric and space scientists
- 193 Chemists, except biochemists
- 194 Geologists, including earth scientists
- 195 Oceanographers
- 196 Physicists
- 197 Technologists and technicians in the physical sciences
- 198 OTHER physical scientists

*** Research Associates/Assistants

(Select the code that comes closest to your field)

Sales and Marketing

- 200 Insurance, securities, real estate, & business services
- 201 Sales Occupations Commodities Except Retail (e.g., industrial machinery/equipment/supplies, medical and dental equip/supplies)
- 202 Sales Occupations Retail
 - (e.g., furnishings, clothing, motor vehicles, cosmetics)
- 203 OTHER marketing and sales occupations

Service Occupations, Except Health (Also see 111-114)

- 221 Food Preparation and Service (e.g., cooks, waitresses, bartenders)
- 222 Protective services (e.g., fire fighters, police, guards)
- 223 OTHER service occupations, except health

Social Scientists

- 231 Anthropologists
- 232 Economists
- 233 Historians, science and technology
- 234 Historians, except science and technology
- 235 Political scientists
- 236 Psychologists, including clinical (Also see 070)
- 237 Sociologists
- 238 OTHER social scientist
- 240 Social Workers

Teachers/Professors

- 251 Pre-Kindergarten and kindergarten
- 252 Elementary
- 253 Secondary computer, math, or sciences
- 254 Secondary social sciences
- 255 Secondary other subjects
- 256 Special education primary and secondary
- 257 OTHER precollegiate area
- *** Postsecondary
 - 271 Agriculture
 - 272 Art, Drama, and Music
 - 273 Biological Sciences
 - 274 Business Commerce and Marketing
 - 275 Chemistry
 - 276 Computer Science
 - 277 Earth, Environmental, and Marine Science
 - 278 Economics
 - 279 Education
 - 280 Engineering
 - 281 English
 - 282 Foreign Language
 - 283 History
 - 284 Home Economics
 - 285 Law
 - 286 Mathematical Sciences
 - 287 Medical Science
 - 288 Physical Education
 - 289 Physics
 - 290 Political Science
 - 291 Psychology
 - 292 Social Work
 - 293 Sociology
 - 294 Theology
 - 295 Trade and Industrial
 - 296 OTHER health specialties
 - 297 OTHER natural sciences
 - 298 OTHER social sciences
 - 299 OTHER Postsecondary

Other Professions

- 401 Construction trades, miners & well drillers
- 402 Mechanics and repairers
- 403 Precision/production occupations
 - (e.g., metal workers, woodworkers, butchers, bakers, printing occupations, tailors, shoemakers, photographic process)
- 404 Operators and related occupations
 - (e.g., machine set-up, machine operators and tenders, fabricators, assemblers)
- 405 Transportation/material moving occupations

500 OTHER OCCUPATIONS (Not Listed)



THANK YOU FOR COMPLETING THE QUESTIONNAIRE

Please return the completed form in the postage-paid envelope provided. If you lose the envelope and want another, or if you have any questions, please call Ronnie Goodman at 1-800-937-8283. Our address is:

Westat 1650 Research Boulevard Rockville, MD 20850 Attn: Cindy Gray, TA 2140F





he National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants for research and education in the sciences, mathematics and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Web site at:

http://www.nsf.gov

Location: 4201 Wilson Blvd.

Arlington, VA 22230

For General Information (NSF Information Center): (703) 292-1111

IDD (for the hearing-impaired): (703) 292-5090

To Order Publications or Forms:

Send an e-mail to: paperpubs@nsf.gov

or telephone: (301) 947-2722

To Locate NSF Employees: (703) 292-8183



The Foundation provides awards for research and education in the sciences and engineering. The awardee is wholly responsible for the conduct of such research and preparation of the results for publication. The Foundation, therefore, does not assume responsibility for the research findings or their interpretation.

The Foundation welcomes proposals from all qualified scientists and engineers and strongly encourages women, minorities, and persons with disabilities to compete fully in any of the research and education related programs described here. In accordance with Federal statutes, regulations, and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving financial assistance from the National Science Foundation.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF projects. See the program announcement or contact the program coordinator at 703-292-8636.

The National Science Foundation has TDD (Telephonic Device for the Deaf) capability, which enables individuals with hearing impairment to communicate with the Foundation about NSF programs, employment, or general information. To access NSF TDD dial 703-292-5090; for FIRS, 1-800-877-8339.





NATIONAL SCIENCE FOUNDATION

ARLINGTON, VA 22230

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

RETURN THIS COVER SHEET TO ROOM P35 IF YOU DO NOT WISH TO RECEIVE THIS MATERIAL □, OR IF CHANGE OF ADDRESS IS NEEDED □, INDICATE CHANGE INCLUDING ZIP CODE ON THE LABEL (DO NOT REMOVE LABEL).



NSF 01-337



U.S. Department of Education

Office of Educational Research and Improvement (OERI)

National Library of Education (NLE)

Educational Resources Information Center (ERIC)



NOTICE

Reproduction Basis

This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.
This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").

EFF-089 (3/2000)

